Fundamentals of Total Quality Leadership

Module 4: Fourteen Obligations of Management

Instructor Information

Lesson Outline

Lesson Objectives

By the end of this module the student will be able to:

EO 4-1 Explain each of the Fourteen Obligations of Management.
EO 4-2 Explain how the Fourteen Points are an application of the System of Profound Knowledge.

Length of Instruction

The lesson takes approximately 2.5 hours

Methods of Instruction

Lecture, videotape, exercise, and discussion

Instructor Information (continued)

Media Required

Overhead projector, screen, chartpack, and felt-tip pens

Videotapes

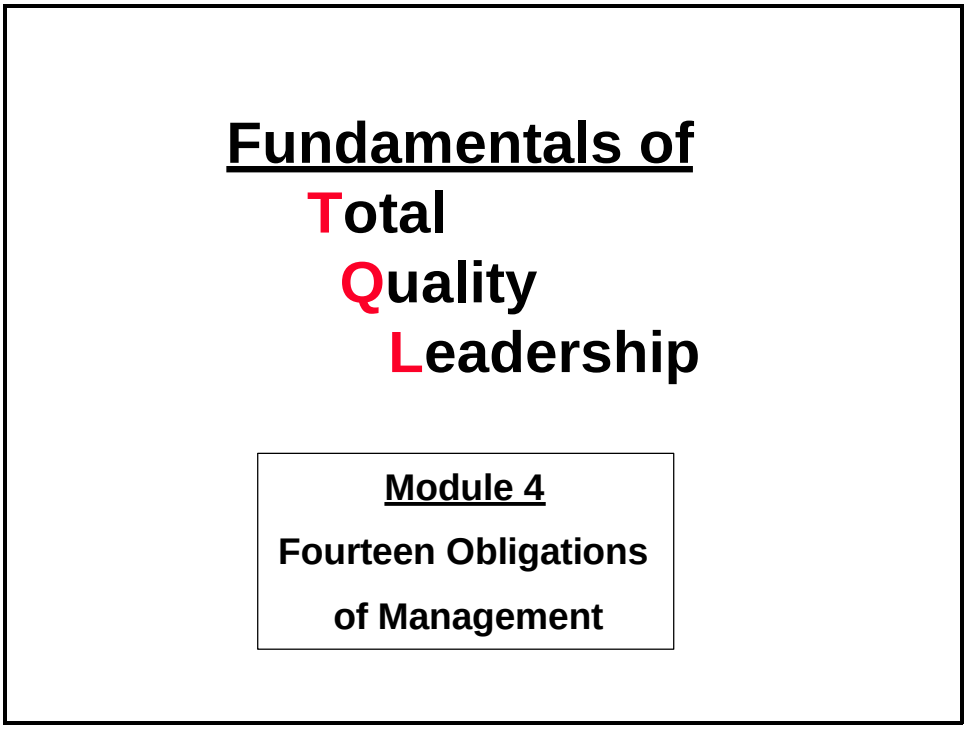
None

Additional Reading

None

The Fourteen Obligations of Management

Point 1: Create and publish to all employees a statement of the aims and purposes of the company or other organization. The management must demonstrate constantly their commitment to this statement.
Point 2: Learn the new philosophy, top management and everybody.
Point 3: Understand the purpose of inspection, for improvement of processes and reduction of cost.
Point 4: End the practice of awarding business on the basis of price tag alone.
Point 5: Improve constantly and forever the system of production and service.
Point 6: Institute training for skills.
Point 7: Teach and institute leadership.
Point 8: Drive out fear. Create trust. Create a climate for innovation.
Point 9: Optimize toward the aims and purposes of the company the efforts of teams, groups, staff areas, too.
Point 10: Eliminate exhortations for the work force.
Point 11 (a): Eliminate numerical quotas for production. Instead, learn and institute methods for improvement.
(b): Eliminate M.B.O. (management by objective). Instead, learn the capabilities of processes, and how to improve them.
Point 12: Remove barriers that rob people of pride of workmanship.
Point 13: Encourage education and self-improvement for everyone.
Point 14: Take action to accomplish the transformation.



Fundamentals of Total Quality Leadership (FTQL)

Module 4: Fourteen Obligations of Management

This module introduces Deming's Fourteen Obligations of Management. These concepts are the primary means for application of the System of Profound Knowledge.

Learning Objectives

By the end of this module the student will be able to:

- **Explain each of the Fourteen Obligations of Management**
- **Explain how the Fourteen Points are an application of the System of Profound Knowledge**

Learning Objectives

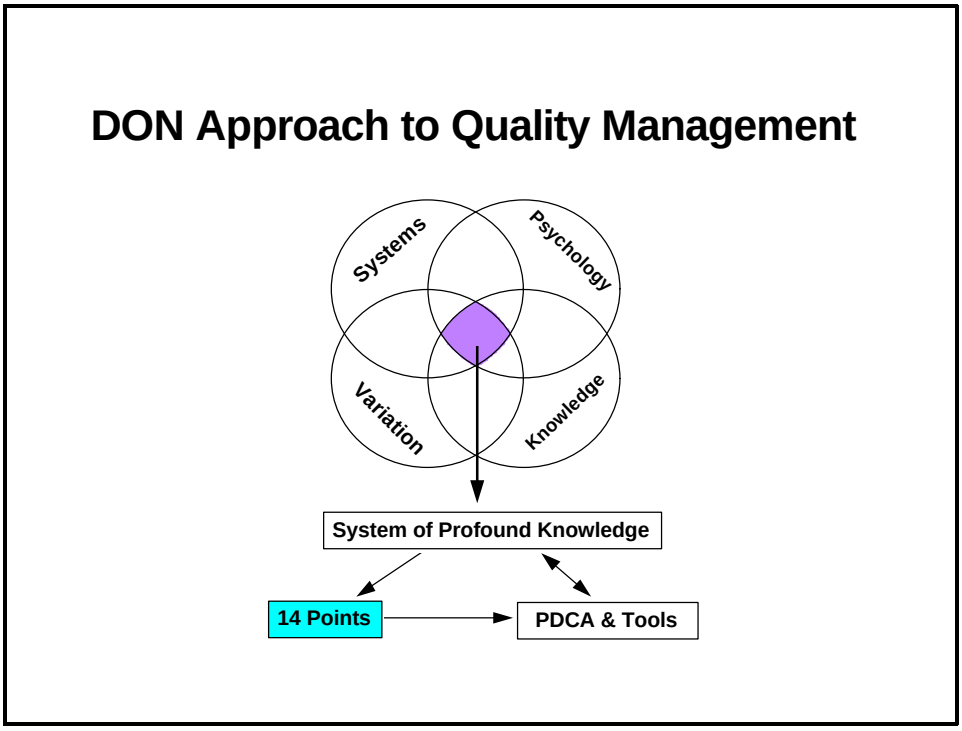
By the end of this module the student will be able to:

- **Explain each of the Fourteen Obligations of Management**

The Fourteen Points are Deming's theory of total quality. Improving quality means actively practicing the Fourteen Points.

- **Explain how the Fourteen Points are an application of the System of Profound Knowledge**

The Fourteen Points describe the things that Department of the Navy leaders must do to accomplish the transformation of the Navy and Marine Corps to total quality leadership.

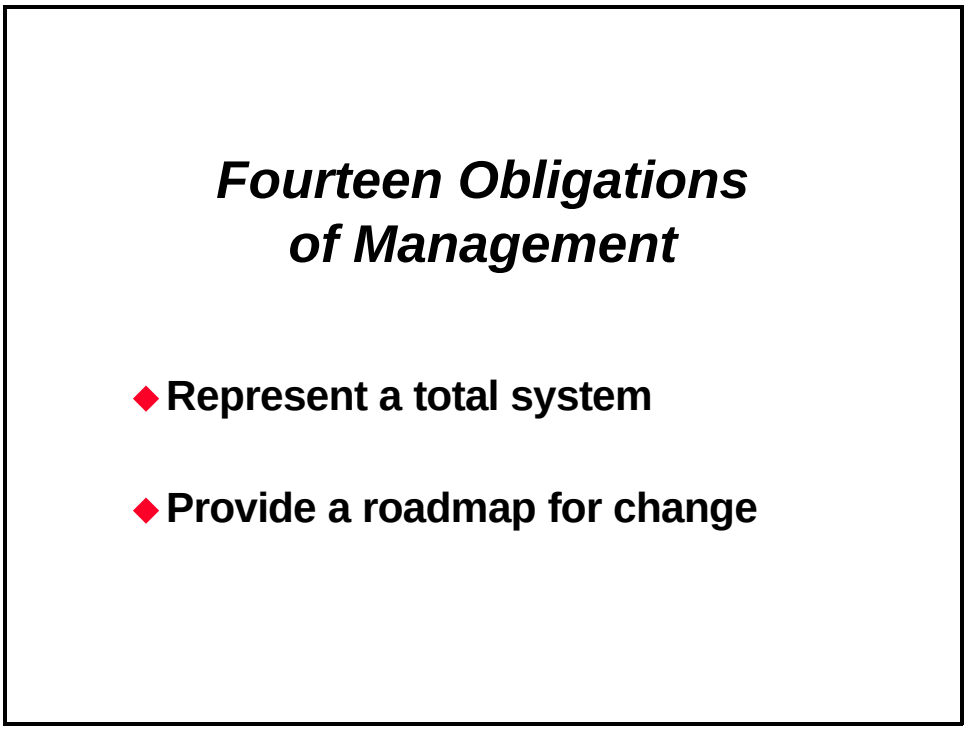


DON Approach to Quality Management

This graphic shows that the Fourteen Points are one of the three main elements of DON's approach to quality management.

So far in this course, you have been introduced to systems, processes, variation, psychology, and making decisions based on data. We have talked about the importance of transforming our organizations from traditional management practices to the total quality approach. You have learned how the System of Profound Knowledge, the PDCA cycle and the tools can be used to begin this transformation. You've learned the importance of gaining profound knowledge by learning and integrating its four parts. Now we will discuss the Fourteen Points.

To fully understand the implications of the Fourteen Points, leaders must continue to study and use them. So, as this lesson continues, think about how they can be applied in your organization.



Fourteen Obligations of Management

The **transformation** of the Department of the Navy to a quality-focused organization requires knowledge of the concepts of total quality and specific skills in process analysis and improvement. As we discuss the Fourteen Points, you will see how the concepts you have learned are derived from these points.

- **Represent a total system**

Leadership cannot practice some points and ignore the others. On the other hand, you do not have to accomplish them all at once. You can start with some to achieve the success that can motivate your continued efforts. But keep in mind that the objective is to practice **all** Fourteen Obligations of Management. Leaders need to make them the way of life in every Naval organization. **Only** when an organization can say it is practicing all Fourteen Points is it truly practicing TQL.

The Fourteen Points apply to all organizations -- to small organizations and large ones, to service industries and to manufacturers. They apply to each division within a company. They apply to public and private organizations and to military and civilian organizations.

◆ **Provide a roadmap for change**

The Fourteen Points are an application of profound knowledge. Knowledge of one is incomplete without knowledge of the other.

We will present key ideas associated with each point, providing enough information to help you begin to understand the Fourteen Points as a **system** for quality management.

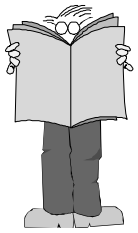
In place of the current systems of management, Deming offers the Fourteen Points for managers and identifies Deadly Diseases that stand as barriers to effective management. These "obligations of management" are not aimed at process workers in the lower echelons of an organization but rather for upper management.

★**Additional Information:** Three especially good sources of information about the Fourteen Points are books by: (a) McConnell (1988), (b) Scherkenbach (1989), and (c) Walton (1990).

Point 1

Create and publish to all employees a statement of the aims and purposes of the company or other organization.

- **Leadership is commitment to people and jobs**
- **Quality is a constant priority**
- **Publish the statement**



Point 1

Create and publish to all employees a statement of the aims and purposes of the company or other organization.

★**Additional Information:**

1984 - Create constancy of purpose towards improving products and services, allocating resources to provide for long-range needs rather than short-term profitability.

1986 - Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs.

☞ **Instructor Direction:** Tell the students that the bullets in this lesson are not the words of Deming, unless identified as such. They are interpretations of the major ideas that the points convey.

★**Additional Information:** Deming revised or condensed his wording of the Fourteen Points (1986, p. 23). While the words in the condensed versions have changed, the underlying principles and intent remain constant. The condensed version presented here is from a videotape series The Deming Library, The quality leader, Volume XVI, 1989.

To provide more information for understanding the Fourteen Points, two previous versions of each Point are included in boxes in the instructor guide: (1) the 1984 version that was current when the DON began its research efforts in quality, and (2) the 1986 version from Deming's book, Out of the Crisis.

In earlier lessons, you learned that organizations are systems and that a system is a collection of interacting parts functioning as a whole. In Point 1, Deming says that the organization, as a system, must decide what its aims are, must publish those aims, and must demonstrate its commitment to those aims over time.

This point says that everyone must focus in one direction -- toward continual improvement through quality. Quality is not an intermittent priority. Quality must be an ongoing focus of effort. The organization's leaders must develop a unified vision of their long-term aims, which must be shared with and supported by all levels of the organization. These aims must be integrated with the organization's mission, and all policies and practices must be consistent with these aims.

- **Leadership is commitment to people and jobs**

Leadership has an obligation to keep an organization in business and provide jobs. Quality cannot be attained without the cooperation of the work force. Cooperation will not occur without trust. Trust can be won only by leaders who show commitment, day after day, to the survival of the organization and its people. The opposite of trust and cooperation results in mergers, takeovers, and RIFs, which produce extreme stress and non-productive time on the job.

- **Quality is a constant priority**

The quest for quality cannot be turned on and off; it requires constant direction and support. Quality must be the number one priority. Deming refers to such commitment as "constancy of purpose."

Constancy of purpose means everyone understands and pursues the aims and purposes of the organization, and top leaders work to keep the organization in business. Every action of the organization must reflect this constancy of purpose.

Examples of leadership activities that reflect constancy of purpose include:

- Investing in research and development
- Developing people through education and training
- Continually pursuing quality and innovation in products and services
- Maintaining equipment to keep it performing as designed
- Obtaining technology to help meet the aims of the organization

An example of a lack of constancy of purpose is an organization that periodically reorganizes and changes titles or reporting procedures but does not improve the work product or process.

Don't confuse **constancy of purpose** with **consistency of action** . Constancy of purpose focuses work toward common goals, unifying the efforts of the organization, its customers and suppliers, and fostering cooperation toward common purposes. Consistency of action means doing the same thing over and over. Such actions may be useful or harmful depending on the circumstances.

For example, a company that made buggy whips would have shown consistency of action if they continued to make only buggy whips even after the need for buggy whips disappeared. If they had constancy of purpose, instead of going out of business, they might have set a goal to make high quality transportation accessories. In this way, they might have kept in touch with their customers and made products that satisfied their customer's **changing** needs.

★**Additional Examples:** The Red Bead Exercise showed **consistency** of action. The managers kept everyone performing the same actions repeatedly -- although these actions didn't meet the aim of the organization (to deliver white beads).

As another example, a company might show consistency of action by continuing to make quality manual typewriters. But it would show constancy of purpose by expanding operations into other products or services as the technology and market changed.

★**Additional Information:** Establishing constancy of purpose may be a problem in the DON because of the rotation of commanding officers every 2 or 3 years. One solution to the rotation problem is to have constancy of purpose for total quality understood and practiced at the highest levels of the DON.

In the military, officers must develop a different attitude toward their "change of command." The incoming commanding officer will learn it is not necessary to change the goals of the organization. These goals may be part of a strategic plan that is published and shared throughout the organization. The new commanding officer will need only to support or refine the goals.

Once this attitude has been developed, the incoming commanding officer may feel less of a need to make changes just to "make a mark" or establish authority in the organization. When this happens, constancy of purpose will be easier to maintain in the DON.

☺ **Discussion Questions:**

1. **Can you suggest ways that the military can promote or improve its constancy of purpose even with the 2-3 year rotation scheduling? (Must every military organization continue to expect new directions and initiatives with each new Commanding Officer?)**

   One possible remedy might be that the executive officer could rotate into position of new commanding officer. In time, as TQL becomes the norm throughout the Navy and Marine Corps, some of these remedies might be unnecessary.

2. **What are some policies that the military could change that could remove the tendency for leaders to try to "check the blocks" (instead of continually improving processes) during their watch?**

3. **What are other examples of lack of a continuing commitment to organizational aims?**

◆ **Publish the statement**

Point 1 calls for a published statement from top leadership that explains the organization's mission. This is a statement of why the organization is in business. The mission expresses the organization's aims and purposes.

Why a published statement? First, a written document requires more thought and preparation than talk. It forces top leaders to ask and answer tough questions about the organization.

Second, all members of an organization (including employees, customers and suppliers) can work better if they understand how their jobs relate to the aims and purposes of the organization. People's decisions can improve when they understand where the organization is going and why.

Third, a written document announces leadership's commitment to the particular purposes and provides a benchmark against which to judge their decisions and behaviors. The top leaders must decide what the quality philosophy of the organization should be. These are the leaders' promises to their employees and customers. Developing a written document is a first step in implementing TQL.

☺ **Discussion Questions:**

1. **What is the aim or mission of your organization?**

2. **Does your organization demonstrate a constancy of purpose? What would be some examples of constancy of purpose in your organization?**

3. **If an organization clearly demonstrated a continuing commitment to certain aims, how would this help the individual employee?**
   Employees could match their actions to the goals of the organization, knowing that their work would be beneficial and not just a bit of work to do.

4. **How would this benefit the organization itself?**
   Various departments could coordinate their tasks. Work could be evaluated in terms of common goals. Some unnecessary tasks also might be eliminated.

Point 2

**Learn the new philosophy,
top management and everybody.**

- **We can no longer live with acceptable levels of delays, defective materials, and defective workmanship**
- **Fifteen to forty percent of product cost is due to waste**
- **We are in a new economic era**

Point 2

Learn the new philosophy, top management and everybody .

★ **Additional Information:**

1984 - Adopt the new philosophy for economic stability by refusing to allow commonly accepted levels of delays, mistakes, defective materials and defective workmanship.

1986 - Adopt the new philosophy. We are living in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.

You have learned that TQL requires a cultural change, a transformation to a new way of doing business. Point 2 focuses on the importance of everyone in the organization learning to assume new responsibilities, beginning with learning what those responsibilities are.

This point means that you must change your philosophy of doing business. You need to learn the philosophy of total quality if you want to survive. You must adopt quality as your ultimate aim. This requires a clear vision of what you want and a clear organizational strategy to achieve it. The Fourteen Points will show how to make such changes and aim your changes in the right direction.

- **We can no longer live with acceptable levels of delays, defective materials, and defective workmanship**

Many American industries allow for a specified level of defective product. Sadly, such allowances appear in quality assurance (QA) textbooks and are taught in QA classrooms. The only acceptable level of quality is total quality. Given the variable nature of people and machines, achieving "zero defects" may be impossible, but **should we plan for waste, or should we plan for improvement?**

The old ideas of "acceptable" quality levels have to be replaced by the new approach of a continual search for ways to improve quality.

One way to demonstrate that we are learning to live by the new philosophy is to refuse to accept shoddy products, whether in our work life or personal life. Another is to refuse to produce and deliver shoddy products to our customers.

The DON must provide the best defense possible within the budget provided by Congress. To do this, we need to learn the new philosophy. We cannot tolerate waste, rework, and delays that are caused by poorly designed and poorly managed systems and processes. We work in these systems every day. But sometimes we do not see them or think much about them. As with personal habits, we can ignore systems that are already in place. Sometimes we consider replacing them only after a crisis occurs and our backs are to the wall.

We must become aware of the systems and processes in which we work. Then we must improve or replace them with ones built on the new philosophy of leadership.

- **Fifteen to forty percent of product cost is due to waste**

Remember this idea from Module 1 (DON Quality Approach). We cannot afford this waste. We must learn the new philosophy so we can prevent such waste.

☺ **Discussion Questions:**

1. **Point 2 says we need to adopt a new philosophy. Why? What is wrong with the old philosophy?**

2. **How can you begin to adopt this philosophy in your organization?**

◆ **We are in a new economic era**

This new economic age requires a real thought revolution. The rules have changed, and we need to learn a new way of thinking. We have to change the way we think about the quality of our products and services. The mind set of some American managers and consumers is that mistakes, defective products, poor service, and breakdowns are inevitable. They think that is the cost of doing business and there are no alternatives. Other American managers have shown us, in dramatic fashion, that this is **not** the way it has to be, and there **is** an alternative -- **quality!**

To meet the challenge, the Department of the Navy needs the TQL approach. The Department of the Navy is affected by the same general economic conditions as the United States. It is also experiencing radically declining budgets and personnel. We cannot afford waste or rework at any level. We must adopt a philosophy that emphasizes quality.

Adopting the new quality philosophy requires a **paradigm shift** in thinking and behaving in organizations. A paradigm shift is **not** about a gradual evolution -- a paradigm shift means a major revolution in thinking. The people of the 15th century had to make a paradigm shift to realize and accept that the earth was round instead of flat. This one realization affected their thinking about a host of other issues: travel and navigation, movement of stars, gravity, and even the place of humanity in the cosmos. Now we have to make a paradigm shift to accept a new philosophy of doing business. This new philosophy will transform the way we think about every aspect of our work lives. The Fourteen Points are the transformational tools to ease the needed **paradigm shift** .

Point 3

Understand the purpose of inspection, for improvement of processes and reduction of cost.

- **The problem is in the process, not the product**
- **Workers are the best preventers of defects**
- **Leaders need to understand what action to take based on data**
- **Inspection has its place**
- **Even 100% inspection does not ensure quality**

Point 3

Understand the purpose of inspection, for improvement of processes and reduction of cost.

★ **Additional Information:**

1984 - Cease dependence on mass inspection by requiring statistical evidence of built-in quality in both manufacturing and purchasing functions.

1986 - Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.

In earlier modules, you learned that building quality into a product or service is better than trying to inspect it after it has been finished. You learned that process improvement is not only cheaper than inspection, it also leads to making data-based decisions.

- **The problem is in the process, not the product**

Process improvement is a better method of achieving quality than inspection. As you learned in Module 1 (DON Quality Approach), inspection is a more costly and inefficient to achieve quality. By the time traditional inspection happens, it is too late. The faulty product or service has already been made. Also, it costs just as much to make a faulty item as it does to make a high quality one. It is better to build quality into the product or service in the first place.

Improving the process improves **all** future products, but reworking a finished product only fixes that **one** product. For example, if we made toast for breakfast every day and burned it, scraped it and ate it, that would be inspection and rework. If we adjusted the toaster so that it made the toast the way we like it, that would be process improvement.

- **Workers are the best preventers of defects**

Well-trained workers are the best people to find defects or problems in the process. They are the ones directly involved with the process.

Because workers are involved in their work, they can identify process problems more easily. Workers who are valued for finding problems in the process also have increased responsibility and pride of ownership.

- **Leaders need to understand what action to take based on data**

Inspection can be used to improve quality and reduce cost if it is used properly. Leaders must understand what to do with inspection data. Inspection data indicates that something is wrong (or right) with the process, not with the workers.

Collecting data samples on process or output measures to construct control charts is an example of using inspection properly. The purpose of is to identify **special causes and common causes**. If special cause variation is present, it can nearly always be identified by the workers.

The leader's responsibility for removing special causes is to support the workers by authorizing them to take appropriate action and then follow up on recommendations. If there are no special causes -- if the system is stable -- it is the responsibility of the leader to improve the process by investigating and reducing common cause variation.

◆ **Inspection has its place**

Remember that this point focuses on the importance of not relying on inspection to achieve quality. Quality is achieved by improving the process.

Sometimes inspection is necessary. If a process is not in statistical control, 100 percent inspection is needed to keep the customer from receiving poor products. Inspection is required when error cannot be tolerated.

For example, producing integrated circuits or measuring medical dosages requires 100 percent inspection. Safety considerations fall in this category. Releasing an overhauled aircraft without flight tests would be foolhardy.

★ **Additional Information:** Deming clarified this point by saying that sometimes inspection is still needed. But the point still focuses on the importance of not relying on inspection to achieve quality. Quality is achieved by improving the process.

◆ **Even 100 percent inspection does not ensure quality**

Remember this concept from Module 1 (DON Quality Approach)? Even with 100 percent inspection, it is still possible for bad products to be passed on to the customer. Even machines are fallible. This means that inspection by gauges also does not guarantee quality. Adding more inspectors can be even worse. If several inspectors inspect a product or service, each inspector might be less vigilant, relying on the others to find the problems.

For example, in Navy propulsion plants, what if several different watch standers are responsible for checking the same valves during a light-off? Each person might feel it is OK to skip the check because someone else will catch it.

★ **Additional Example:** Did the inspectors add any quality in the bead box experiment? No, they simply said how many errors were produced. They did not suggest how to improve the process or reduce the number of errors. Also, management restricted their responsibility to inspection alone.

The “F” Test

The necessity of training farm hands for first class farms in the fatherly handling of farm live stock is foremost in the minds of effective farm owners. Since the forefathers of the farm owners trained the farm hands for the first class farms in the fatherly handling of live stock, the farm owners feel they should carry on with the former family tradition of training farm hands of first class farms in the effective fatherly handling of live stock.

The “F” Test

To give you an idea of just how difficult visual inspection can be, let’s do a quick exercise.

☞ **Instructor Direction:** Read the instructions for **the f test** first and then put the viewgraph up for them to see. Leave the viewgraph up for about two minutes. This will provide greater variation than if the students had enough time to count and recount the fs several times. Read the following instructions to the class: ***“Count the number of times the letter f appears on the viewgraph. You have two minutes to finish (inspectors work under time constraints).”***

The **f** test represents a situation in which we have a skilled work force (everyone knows what an f is), and the task is clear (count the fs). Most real world inspection tasks aren't as clear. Look at the distribution of data for the class. **What happened?** *Human error (variation).* **How many of you counted the f's more than once?** This is rework and inspection.

You also can mention the need for **operational definitions** in the directions (in other words, what exactly is an f in this task). Should they count the f in the title? Should they count the capital F as well as lower case fs? Just because we had 100 percent inspection by a room of inspectors doesn't guarantee high quality or consistent

quality.

☞ **Instructor Direction:** Before class, or while the students are counting, write a **row** of numbers from 28-40 on the whiteboard or chart pack (see chart below). These numbers will be used to construct a frequency diagram for the number of **fs** counted by each student.

After two minutes, have the students read off their individual counts by asking, "How many of you had 28 fs or less?" Write an x above the appropriate number for each individual.

"How many had 29, 30, 31, etc.?" Continue until all students have responded. Or, you can go around the room and ask individuals to give you their counts one by one.

Either of these procedures will produce a picture that looks like a frequency distribution as in the chart below. There are 36 **f**s in the paragraph.

							X	X				
					X	X	X	X	X			
				X	X	X	X	X	X	X		
X		X	X	X	X	X	X	X	X	X		
28	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**

☺ **Discussion Questions:**

1. **Does your organization use inspections in its processes? Where? Would you suggest changing the method, or the inspectors, or the timing of any of these inspections?**
   You can look at customer surveys or other feedback results. Routine measures of the process will be ongoing and will provide some indication of product quality.

2. **Without inspections, how can you feel sure you are sending out quality products to your customers?**
   Inspecting is just removing or sorting what "doesn't pass" from what "does pass." Improving the process means to change the way something is produced. If this is done, the product does not have to be thrown away or reworked to make it a quality item.

Point 4

End the practice of awarding business on the basis of price tag alone.

- **Lowest price does not mean lowest total cost**
- **Relationships between buyers and customers need to change**
- **Relationships between buyers and suppliers need to change**
- **Reduce the number of suppliers to reduce variation**

Point 4

End the practice of awarding business on the basis of price tag alone.

★ **Additional Information:**

1984 - Reduce the number of suppliers for the same item by eliminating those that do not qualify with statistical evidence of quality, end the practice of awarding business solely on the basis of price.

1986 - End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-term relationship of loyalty and trust.

As you have learned, part of the definition of TQL is to assess and improve the materials and services supplied to the organization. Point 4 addresses suppliers. You must change your relationship with suppliers so that we **can** help them improve the materials and services they provide. We must not rely **only** on the price of a product or service as the basis for buying.

◆ **Lowest price does not mean lowest total cost**

A common practice in the DON and in the private sector is to buy materials and services from the lowest bidder to keep costs low. But, as you learned earlier, the **cost to buy** is different from the **total cost**.

If you receive poor materials, or information, or services to use in your process, how will they affect your output? In data processing, they say "garbage in - garbage out." Poor materials or services lead to more rejects, rework, and delays. This drives costs up, not down.

To save money in the long term, it might be cheaper to buy initially more expensive, but higher quality, goods and services. The decision to buy must be based on **total cost** instead of **lowest initial price**. In the same way, contract awards should be based on best value instead of lowest price.

For example, the sailor or marine going into battle finds little satisfaction, and possibly great worry, knowing that his or her equipment was supplied by the lowest bidder. Everyone would feel more confident if the "quality bidder" was the supplier.

★ **Additional Information:** You might want to note that we should only select the lowest bidder if the quality criteria of the bidders are equal.

★ **Additional Examples:**

(a) Sometimes contractors bid low just to get the contract and later renegotiate and raise the end costs.

(b) "Minimizing the initial price tag allows contractors and the services to 'buy in' on a new weapon. Once the political system is committed, typically, later leaps in cost are accommodated -- if with much grumbling." (National Journal, April 25, 1992, p. 986.)

(c) As another example, accepting the lowest price when making previous A7/F14 aircraft led to major engine problems. This led to costly aircraft losses and subsequent upgrades. (COMTRAPAC CNO TQL Team, 1992)

☺ **Discussion Question:**

1. Can you think of any instances in your experience when buying the lowest cost item turned out to be more costly in the end?

★ **Additional Examples:**

(a) The submariner going down to test depth might feel a bit uneasy knowing that the submarine was built by the lowest bidder. (Test depth is the maximum depth before the submarine is supposed to leak.)

(b) People who buy cars because of a lower initial price sometimes spend more money over the long term. This happens because the cheaper cars might need more gas to run or might need more repairs than cars with an initially higher price.

(c) In the Red Bead Exercise, some raw materials (the red beads) were defective. If red beads represent 25 percent of production, we would have to produce 125 percent to overcome this faulty input. This could be avoided by starting out with quality raw materials (such as fewer red beads).

◆ **Relationships between buyers and customers need to change**

Buyers must learn to relate differently both to the people who ask them to make purchases and to the suppliers of those materials and services. Buyers need to learn more about the needs of their customers. Customers need to work more closely with the buyers to specify clearly the quality characteristics of the items they are requesting. Customers must also specify why or how they intend to use the items.

These new relationships apply to both internal and external suppliers. This new way of doing business also means setting up regular feedback and communication ties between us and our internal and external customers and suppliers.

Buyers have information about price and specifications from suppliers, but they seldom have any information about the quality characteristics of items. Without this information, a buyer cannot determine **total cost**. Buyers will need education and training and direction to help them decide how to make purchases based on

quality considerations.

Finally, even when quality information **is** available, buyers may choose to ignore it because of pressure from the organization to buy from the lowest bidder. The changing role of the buyer will require direction and support from the top.

☞ **Instructor Direction:** You might refer to the concept of the "extended system" to reinforce the new customer-supplier relationship.

◆ **Relationships between buyers and suppliers need to change**

We learned from Point 2 that we can no longer tolerate poor quality materials and services and expect to remain leaders in the world. The solution calls for a radical change in how we view the customer-supplier relationship. Where the more traditional relationship may be described as **"at arms distance,"** Deming calls for a relationship that is **"arms around"** (1986, p. 47). He advocates close relationships with suppliers that build loyalty and trust. Close relationships between customer and supplier include frequent contact and open communication. These relationships encourage sharing information about quality improvement, which facilitates continual improvement.

In the Navy and Marine Corps, you need to work more closely with contractors and other suppliers to teach them about quality requirements.

★ **Additional Information:** By regulation, most people in the Navy and Marine Corps have little or no control over these relationships. Standards of conduct currently constrain our dealings with contractors, too. But many rules are imposed locally are being studied for possible changes.

Students may suggest that these points apply more to the Navy Supply Center than to operational forces. Remind them that most of us probably submit requests to supply clerks, procurement clerks, purchasing agents, or ship supply bosses.

★ **Additional Examples:**

(a) Many American companies are changing the way they work with their suppliers. Hewlett-Packard in San Diego teaches quality methods to its vendors and invites them into the plant to see how Hewlett-Packard uses the supplied materials.

(b) The Ford Motor Company recognized its need to establish different relationships with suppliers. It began training and education programs for them. In 1982, it established the American Suppliers Institute (ASI). ASI teaches quality concepts -- not only to Ford's vendors, but to other automakers and their suppliers, too. (Gabor, 1990)

Purchasing managers need to review current purchasing procedures and practices and separate fact from fiction. They need to determine what is possible now, and they must identify problems that are barriers to TQL. Such barriers need to be addressed by people at the appropriate level. For now, we must adopt a new perspective for looking at the acquisition process based on the concept of total, long-term cost.

◆ **Reduce the number of suppliers to reduce variation**

Point 4 is a tough requirement for large, bureaucratic organizations (like the Navy and Marine Corps) which have endless regulations governing the acquisition process. Currently, we seem bound by contracting laws and regulations requiring competitive bidding among suppliers. The DON (and the federal government) must change its culture before this point can be fully realized. For example, it must change the way it approaches contracting.

If you study the acquisition regulations carefully, some perceived barriers may not be barriers at all. There are situations that permit buying that is based on quality. There also is a DOD initiative to look at the Federal Acquisition Regulations (FAR) to try to simplify the use of single vendors.

We need to move toward having fewer suppliers for any single item, and building long-term relationships based on trust. If such a relationship is established, suppliers are likely to work to preserve this steady source of revenue. Remember, as quality improves, variation decreases, and total costs are reduced.

☺ **Discussion Questions:**

1. **What are some advantages of establishing a long-term relationship with a particular supplier?**
   - *You can clearly discuss your needs with your long-term suppliers*
   - *A sense of trust can develop between you and your supplier based on good products and services in the past.*

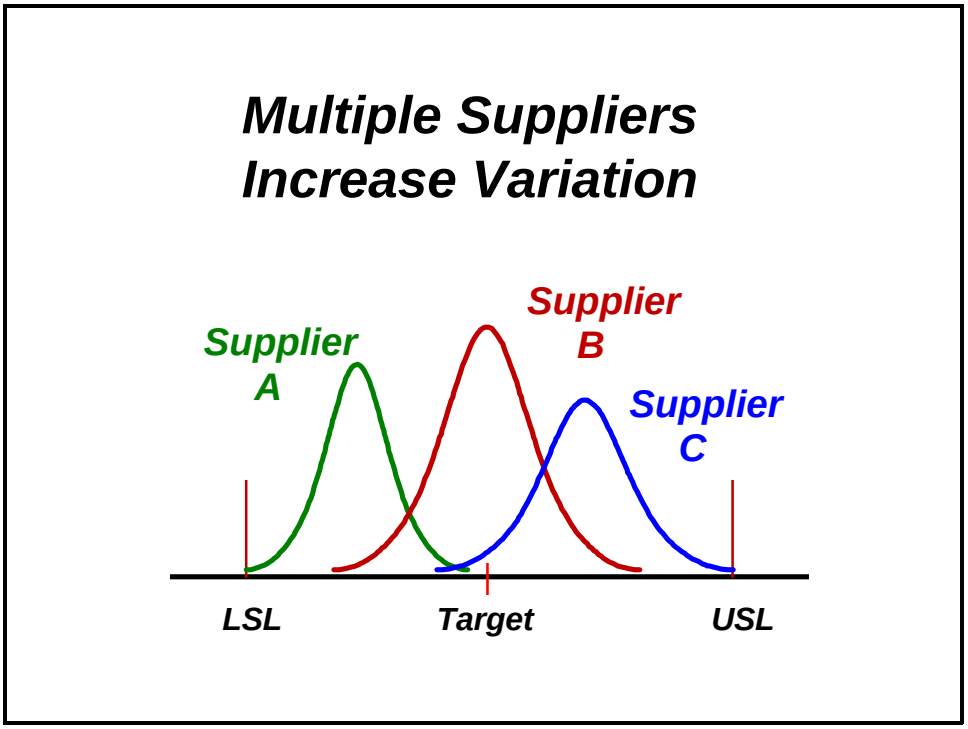
2. **What are some disadvantages?**
   Disadvantages include the possibility of a long-term supplier going out of business and leaving you with no familiar source of supplies.

★ **Additional Example:** In the early 1980's, the Ford Motor Company instituted an incentive plan (called the Q-1 Preferred Quality Supplier Program) to improve the quality of supplier materials. This plan is a rigorous set of supplier standards and examinations. The plan was designed to identify the best companies and to establish long-term partnerships with them. Suppliers who qualified for Q-1 status would eventually become Ford's only suppliers (Gabor, 1990).

★ **Additional Information:** Be prepared for questions such as, "Doesn't this conflict with competition? In our organization, we are trying to stimulate competition."

One possible answer to this is that, it does reduce competition in one way. In another, companies have to compete on quality, not just cost.

★ **Additional Information:** McConnell (1988, p.167) suggests an alternative strategy, especially suited for large organizations such as the military. The effect of having several suppliers can be lessened by having one supplier serve one department or section of the organization. Another supplier can provide services to a different department. In this way, each department has only one source of supplies over the long term.



Multiple Suppliers Increase Variation

"Lot-to-lot variation from any one supplier is usually enough to give fits to manufacturing. It is reasonable to expect that variation between lots from two suppliers will give even more trouble" (Deming, 1986, p. 35).

This viewgraph shows an example of why you need to reduce the number of suppliers to reduce variation. This graphic shows the variation around the target (desired) diameter of a rivet used on the F-14 Tomcat produced by three different suppliers. The upper specification limit (USL) and lower specification limit (LSL) are shown on the bottom line.

Note that, while the rivets from all three suppliers are within the specification limits, the total variation from the three suppliers is greater than the variation from any of the individual suppliers.

☞ **Instructor Direction:** Remind the students that the upper and lower specification limits are not the same as upper and lower control limits and explain the difference again.

One option would be to select one of the three suppliers - perhaps Supplier B because most of its products fall closer to the target. If Supplier B could provide the quantity needed, you could work closely with that supplier, helping it to reduce variation around the target value. A supplier who knows you want a long-term relationship based on quality is more likely to make the changes necessary to move toward the target.

You learned earlier that one way to improve quality is to reduce variation in a customer-defined quality characteristic. The concept is demonstrated in the case of using multiple suppliers for the same material (F-14 rivets).

Besides reducing variation, moving to a single, or at least fewer, suppliers significantly reduces the paperwork needed for each vendor. This paperwork includes billing, accounts receivable, inventory control, and so on, which increases costs. Our aim is to reduce variation, but multiple suppliers increase variation.

☺ **Discussion Question:**

1. **If five companies all produced bolts that were within specifications for your needs, would it be to your advantage to buy from all five? From just one? Explain your reasons.**

   There would be more variation among the bolts produced across all five companies than there would be from just one company.

Point 5

Improve constantly and forever the system of production and service.

- **Constantly reduce process variation**
- **Constantly pursue innovation in process and products**
- **Leaders are responsible for the system**

Point 5

Improve constantly and forever the system of production and service.

★ **Additional Information:**

1984 - Search continually for problems in the system to constantly improve processes.

1986 - Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.

You have learned that the key to quality lies with continuous process improvement of an organization's processes. One way to improve a process is to reduce the variation that is part of all processes. You have also learned that the PDCA cycle is a method for continual improvement. Point 5 addresses the importance of continuous process improvement for TQL. When thinking about this point, remember that a system is made of processes.

◆ **Constantly reduce process variation**

Improving quality by reducing process variation is a cornerstone of Total Quality Leadership. And we reduce process variation by using the PDCA cycle.

The concept of reduced variation applies to products and services as well. Think about drinking a Dr. Pepper that doesn't taste like a Dr. Pepper, or having a bowl of Campbell's Chicken Noodle Soup that tastes like something else. Chefs in a restaurant try to make the fettucine alfredo consistently from one time to another to ensure customer satisfaction. What these products show is consistency, a lack of variation.

People need to understand and improve their internal customer-supplier relationships described earlier. The more they understand how their piece of the process relates to other pieces, the more likely it is that variation will be reduced and that process improvement will be enhanced.

☺ **Discussion Question:**

1. **What are some advantages of producing a product or service that has little variability?**

   The less variation, the greater the quality. The greater the variation, the higher the costs, the greater the scrap or rework, and the lower the customer satisfaction.

◆ **Constantly pursue innovation in process and products**

Remember that **quality is a moving target** . For example, weaponry considered effective today may be unacceptable tomorrow due to innovations in technology.

When an organization uses the PDCA cycle and the relevant TQL tools to change a process, it does not mean that the process is "fixed." Remember variation is inherent in all processes. A process may need long-term study and many improvements before it is stable and capable.

In addition, you need to encourage and be alert to opportunities for significant advancements or innovation of your processes, products, and services. Spring-driven Swiss watches used to be famous, but few of these watches are made in Switzerland today. The Swiss watch industry did not feel the need to pay attention to quartz and digital technology innovations. In today's rapidly changing environment, the DON must be prepared for and pursue innovation.

★ **Additional Examples:** Is there a market today for buggy whips? For manual typewriters? For hi-fi record players? Even the early television video games have become obsolete. Improving automobile carburetors makes no sense now that the innovative fuel injection system is replacing them. In the DON, reciprocating engines have been replaced, for most missions, by jet engines. (COMTRAPAC CNO TQL Team, 1992)

Many of today's products will become only collector's items of tomorrow. This is a major reason to pursue innovation constantly. It is important to anticipate customer needs, as companies did when they introduced the compact disk and personal computers.

★ **Additional Information:** For example, Scherkenbach (1988, p. 36) notes that the PDCA is the main example of a method for continual improvement, and he calls the steps

(a) Recognize the opportunity
(b) Test the theory to achieve the opportunity
(c) Observe the test results
(d) Act on the opportunity, which connects back and continues at (a)

He also notes that customer feedback drives the continual improvement.

◆ **Leaders are responsible for the system**

Leaders are responsible for improving organizational systems. In the DON, the leaders probably did not design all the existing processes on their watch. Often the systems were in place when they arrived. Systems are an inheritance, good or bad. However, leaders are responsible for determining system quality and taking appropriate actions.

Also, leaders do not have 100 percent control over organizational systems. In the DON, higher levels hold some control (for example, the President, Congress, the DOD, headquarters) or different agencies (such as OSHA or the Supply System).

Point 5 means that leaders must constantly and forever improve the systems **they** control. They must also push information up the chain of command to help higher levels to notice barriers that stand in the way of continuous process improvement.

★ **Additional Information:** Be prepared for questions such as, "What does Deming think of unions?" One possible answer is that Deming encourages bringing the union steward into the process. He counsels that it is important that you **not** make this a "we-they" issue, and it need not be one. Involving personnel in determining how work gets done is an important aspect of TQL and is in keeping with unions' long-held belief that workers should have more say-so in the workplace.

We can look at the union on North Island, which is already involved with TQL issues. When the unions understand why TQL is good for everyone, they come aboard.

At McClellan AFB, PACER SHARE did away with the classic civil service structure. They simplified the job classification system, introduced broad pay bands, eliminated annual individual performance ratings, and set up a productivity gainsharing system. This effort marked the first time that unions and management collaborated on an experimental program to improve personnel management and productivity in a Federal agency (Shettel Dutcher, et. al., 1992).

☺ **Discussion Questions:**

1. **If you are producing a product or service that seems to please your customers, why keep trying to make changes to improve it? Isn't this just asking for trouble?**

   (a) Added improvements will probably please customers even more.

   (b) A product or service might become outdated or be replaced by an innovation from another company.

   (c) Improving a product by improving its process reduces trouble by reducing waste and rework.

2. **Why are customer opinions and feedback so important in the PDCA Cycle?**

   Quality depends on customer satisfaction and loyalty. If you do not know how the customer likes your products or services, how will you know how to guide your improvements?

3. **The saying, "If it ain't broke, don't fix it," reflects a prevalent attitude in our culture. What do you now think about this saying?**

   We live in a new economic age. We need to learn a new paradigm, which might be characterized by, ***"If it isn't perfect, improve it."*** *There is fierce competition this new age, and the winning hand is better quality through continual improvement.*

   We don't make changes for the sake of change. First, we gather data to see if the process is in control. We don't "fix" the process - we improve and refine it by monitoring it and thinking of better ways to do things.

4. **Companies often say, "If our stuff is selling (or, if we're making a profit, or if we have no competition), why waste time with improvement -- isn't that just gold plating? Continual improvement takes time, effort, and money, so why bother?" What is wrong with this attitude?**

   (a) Considering only short-term profits and ignoring quality has resulted in America's enormous trade deficit.

   (b) In today's DON, shrinking budgets mean that we are going to have to do the same tasks requiring more efficiency and less waste. Quality products improve military efficiency and reduce waste.

Point 6
Institute training for skills.

- **Employees must know how to do their jobs**
- **Employees must receive process improvement training**
- **Training must be viewed as a system**
- **Training must be viewed as an investment**
- **Develop a system of cross training**
- **Job training is a never-ending requirement**

Point 6

Institute training for skills.

★ **Additional Information:**

1984 - Institute modern methods of training to make better use of all employees.

1986 - Institute training on the job.

You have learned the importance of everyone in an organization working together to improve processes. People at all levels of the organization need to know their jobs and how they can contribute to total quality. Point 6 focuses on the need for the organization to make sure its people are properly trained to understand and do their jobs.

◆ **Employees must know how to do their jobs**

You cannot do a job well if you do not know how or why the job is to be done. This statement may seem too obvious to mention. But people who haven't received adequate training often don't know how to do their jobs. And they often are afraid to ask for help.

Some organizations offer little formal training or none at all. Sometimes they provide written instructions that are vague or badly written. Without adequate training, you cannot expect employees to do a good job.

Often, people have no choice but to learn from their co-workers. This leads to several problems. Their co-workers are busy and may provide little help. They probably are inexperienced with training methods and may not know how to train other workers. Also, co-workers probably learned from **their** predecessors, including both correct and incorrect procedures. At the very least, a lack of formalized training leads to greater variation in processes.

For example, compare this faulty training cycle to the telephone game. One person whispers a message to the next person who then whispers it to a third person, and so on. The final message rarely resembles the original message. The degradation of information resulting from the telephone game resembles the degradation (increased variation) that you get in training effectiveness as the result of **worker training worker.**

★ **Additional Example:** Sometimes personnel who have been trained on one system are transferred to a ship that has an entirely different system, but they are not provided with any en route training. Or a ship can be decommissioned and its personnel sent to new commands without the training needed for their new positions (COMTRAPAC CNO TQL Team, 1992).

★ **Additional Example:** In a contrasting example, consider Honda's view of the importance of training as revealed in its Marysville plant. Employees receive six months of training before they are allowed to turn a wrench. Top managers go to Japan for six weeks of education and training.

Training must be done by those who have an expert knowledge of the job. To know the job calls for more than just an understanding of the requirements -- it calls for a knowledge of the **meaning** of the job. A leader who serves as the trainer should be a highly skilled performer of the job who can teach others to understand the job. Workers need explanations, not just orders.

In the past, we did a better job of training the work force. People entering a trade (apprentices) were placed under a master craftsperson. Apprentices moved up in the trade as they mastered new skills. The craftsperson continuously assessed the apprentices' skill levels. For whatever reasons, American companies have forsaken this practice. Many have not even considered redesigning their training to fit modern needs. It has cost them dearly.

The more common practice today is to hire people and put them on the job with little or no training. What training they do receive generally relates to a narrow part of the whole operation. They are not taught to see their work as part of a process. People can perform better when they understand how their work relates to other work in the process and to the final product or service.

◆ **Employees must receive process improvement training**

It is critical that **all** employees not only receive the training needed to do their work, they must receive training in how to improve the processes in which they work.

Some things all employees need to know:

- Who are their customers
- What supplies are needed and who provides them
- Who used their product or service
- How the product or service is used
- What role they play in the overall process
- What is the next stage of the process
- How to use graphic methods

☺ **Discussion Questions:**

1. **Have you ever had a job at which you received little or no training? What were the consequences?**

2. **Have you ever been misinformed by a co-worker about what to do on a job? What were the consequences?**

◆ **Training must be viewed as a system**

Training must be viewed as a system and is just as important to the organization as any other system (such as production, finance, planning). Training viewed as a system means:

- Determining training requirements up front (needs analysis)
- Training people in the skills that will help them do the job
- Developing methods to assess training effectiveness (evaluation)

This requires a **training plan** that considers both short-term and long-term needs. This training plan should include formal in-house training for work skills that are seen as important by the organization. Such training will help prevent problems that can arise from poorly trained workers or workers who learn only from other workers.

◆ **Training must be viewed as an investment**

It is vital organizations consider the costs involved in training all their people as an investment and not as an expense. Training in the DON costs millions of dollars. Without adequate training of DON personnel, there would be money wasted on unnecessary operations or rework of faulty products and services.

Training is so important to the Japanese that the decision to train or not to train is not a discretionary item for managers. Even in hard times, training remains a high priority item. For example, Nissan requires all prospective Infiniti sales people to have special training on both the Infiniti and on its competitors before they become Infiniti sales people.

Money and time spent for training does not show up on the balance sheet as an increase in the net worth of a company like money spent for equipment, but it is valuable. Training is the basis for our being able to do our work.

When funding is lost or decreased substantially, training is one of the first "costs" to be cut. During budget crunches, every DON organization must remember that training is not an expendable item.

★ **Additional Example:** Infiniti sales people first have four days of training to learn about the product. This is followed by working with sales consultants for a month. If they pass this training, they go to a six-day "boot camp" training in Scottsdale, Arizona. There, they review the product and make comparison drives on the Infiniti and on competition cars. Only then are they considered Infiniti sales people.

Also, every dealer employee attends this training, including clerks and receptionists. This is part of a plan to enable everyone at a dealership to answer any question about the Infiniti lineup (Armstrong, 1991, p. 104).

☺ **Discussion Question:**

1. **In tight budget times, why is it a bad idea to cut the training budget?**

   Training is a main way to teach people their jobs. If people do not know their jobs, products and services suffer. This will, at the least, increase variation and costs. At the worst, the customer will become unhappy. Then everyone is out of work.

◆ **Develop a system of cross training**

The multi-skilled labor force is becoming more common. Leaders have the responsibility for developing a policy of **cross training** and for **retraining** employees in new technologies and skills to help them keep up with changes. Organizations of the future will need workers to know more about the process than they do now. Also, they will be part of teams that need little direct supervision. The teams will possess the process knowledge and authority to manage themselves. This requires education and a new view of organizing and managing work. Education related to teamwork, cooperation, and human relations will be necessary for everyone.

For example, Trident submarines require multi-skilled sailors. The small space on a submarine limits the number of people who can be aboard. It also limits the number of people who can specialize in only one skill. Cross training allows for more flexibility in a fast-changing work environment and enables other sailors to replace an injured sailor during an emergency.

◆ **Job training is a never-ending requirement**

As we continually improve our methods and procedures to satisfy our customers, everyone's training will need continual upgrading. The days of learning one limited set of actions that will be repeated for a lifetime are over.

Training also should be fitting for the job. If people aren't going to use the training to help them work better and improve processes, the resources could be spent better elsewhere. Training should be given only when it is needed. Some call this idea **just-in-time** training. (The term "just-in-time" means providing a resource just before it is used).

Continuous process improvement also includes better allocation of human effort. It requires appropriate selection of people, placement, and training. It means giving all workers a chance to advance their skills and contribute the best of their talents. By improving education and training, you improve the system itself. As people learn better ways to do their jobs, variation decreases and the process improves.

Tribus (1984) conducted a study of six Japanese companies that won the Deming Prize. He found that the training requirements for each employee should be determined, and they should be provided with appropriate training. Everyone in the organization should receive training in basic statistical methods. As people rise in responsibility, they are expected to become more proficient in statistics or statistical methods. These findings indicate a systems approach to training. They also show that training must be perceived as a continual requirement.

☺ **Discussion Questions:**

1. **What are some things about which all personnel need to be trained?**

   Some possibilities are:

   - *They should know who their customers and suppliers are.*
   - *They should also know to whom they should go for help.*

2. **How did you learn your job?**

   Some possible answers include:

   - *I learned some of my job in "A" school. Then I **really** learned it on the job.*
   - *Someone showed me how.*
   - *Watched someone do it.*

Point 7

Teach and institute leadership.

- The goal of leadership is to help people do a better job
- A leader is coach and counsel
- Leaders must understand processes
- Improvement means change, and change requires leadership

Point 7

Teach and institute leadership.

★ **Additional Information:**

1984 - Focus supervision on helping people do a better job; ensure that immediate action is taken on reports of defects, maintenance requirements, poor tools, inadequate operating definitions or other conditions detrimental to quality.

1986 - Institute leadership. The aim of supervision should be to help people and machines and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers.

Despite many research efforts on leadership, there are still controversy and conflicting views on the subject. Even so, this research information provides perspective and direction to leadership education and development.

Within the Navy, leadership is defined as: "the art of influencing people to progress toward the accomplishment of a specific goal" (NAVEDTRA 100054 Basic Military Requirements).

Note that leadership is referred to as an "art" and not as a science. This idea suggests that managers need to **study leadership principles** and then **exercise creativity** in invoking the "art." One goal of total quality leadership is to improve this artistry.

We have said that top-down leadership is required to achieve the TQL cultural transformation. You have also learned that our DON leaders are responsible for beginning and providing the resources for this transformation. We will discuss some ways that leaders at all levels need to change to enable TQL to become the DON way of doing business.

What does leadership mean? In Point 7, leadership refers to **supervisory behavior** , not a specific **position** within the organization. Everyone who supervises or manages other people has leadership responsibilities. Leadership is management's job.

In a 1991 paper, Mr. Garrett, a former Secretary of the Navy, said, "Quality is leadership driven." He also said that leaders in the operational environment must learn to "change the way they work with subordinates, gather information, make decisions, and improve the quality of operational performance."

★ **Additional Information:** From Garrett, H. L., III. (1991, June 6). DON executive steering group guidance on total quality leadership (TQL). (Paper by the former Secretary of the Navy). Washington, D.C.: Department of the Navy.

◆ **The goal of leadership is to help people do a better job**

Leaders can help the organization do a better job first by establishing a **goal** to pursue total quality (Point 1, constant commitment). Then, they can provide adequate **resources** (people, training, methods, statistical tools, incentives, and so on) to achieve the goal.

Once leaders have established the aim to pursue total quality, they are responsible for initiating and guiding the actions that will move the organization toward that goal. Leaders must recognize and reward these actions (such as interdepartmental cooperation) and correct any actions that move the organization away from the goal (such as interdepartmental turf battles).

As examples, a supervisor can help people by ensuring that:

- Immediate action is taken on reports of defects
- Equipment is properly calibrated and in operating order
- Tools are adequate for the job
- Individuals receive proper education and training
- Operating procedures are current

◆ **A leader is coach and counsel**

Leaders are leaders because they teach, coach, help, share their experience, encourage teamwork, provide support, identify needs, and solicit suggestions. These activities are clearly beyond the traditional functions of supervision.

Imagine the differences in leadership behaviors between a supervisor who comes to work each day ready to **direct** everything (often without knowing how the work is done), versus the leader who has some knowledge of the job and comes to work ready to **help** people to do a better job.

Unfortunately, the education and training needed to improve skills in working with people is not a high priority item in many organizations. Reward systems seldom encourage coaching and counseling behavior. Many supervisors are not even aware there is a problem with the way they deal with people.

For many leaders, the idea of being coach and counsel to their subordinates is an alien idea. Many supervisors have learned that their job is to direct the work and to judge their employees, not to ask their employees what they think. They learned this in classrooms and by watching other supervisors.

Some leaders feel that they are in a position where they can finally tell other people what to do. Some don't want to listen, help, counsel, develop consensus, or have their subordinates suggest better ways of doing things. Many of these attitudes arise from the adversarial relationships between workers and managers that are too typical in organizations. This relationship needs to change.

- **Leaders must understand the processes**

What does a leader need to be able to coach and counsel? One thing Deming (1986, p. 54) is adamant about is that "Leaders must know the work that they supervise."

Deming contended that 19 out of 20 supervisors were never on the job that they supervise. How can you coach if you do not know the game? You cannot coach without knowledge -- knowledge of the work.

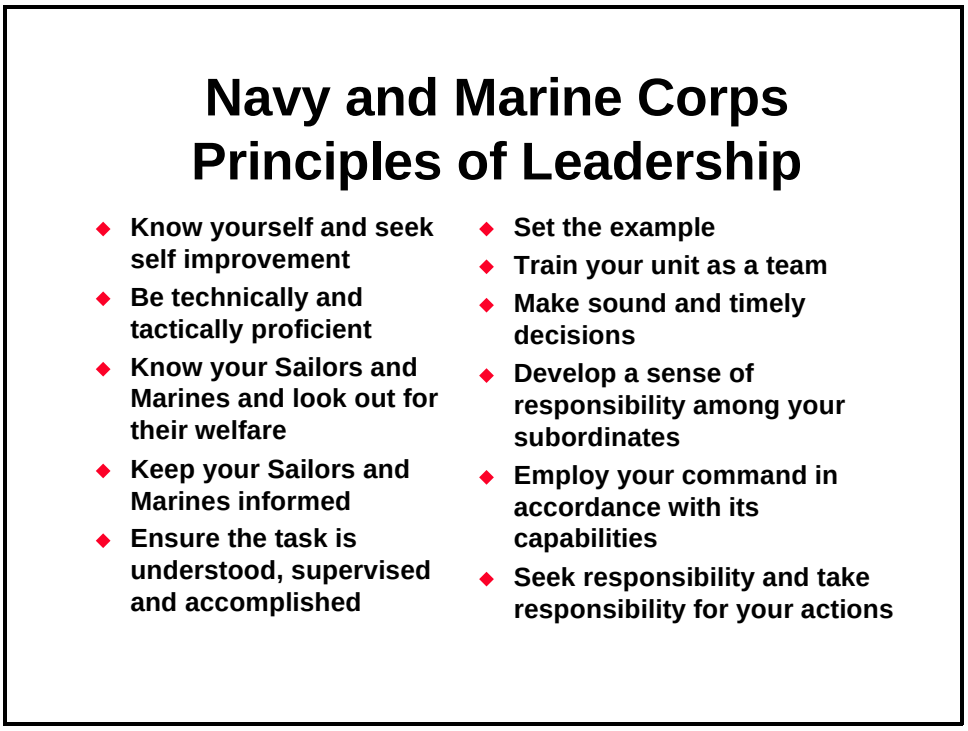
Leaders must know the work processes. This position directly contradicts the idea taught in many business schools that there is a "profession of management." The notion is that there is a basic set of management or leadership skills that apply in any situation. Knowledge of the work itself is not required.

- **Improvement means change, and change requires leadership**

The switch to a pursuit of total quality leadership means change. The amount of change will vary from organization to organization. Some people seem to resist change -- although others would argue that people are not resistant to change, but they are resistant to **being changed** .

Why the resistance? One reason is that we tend to worry most about the unknown, about uncertainty. Change increases uncertainty. What will happen to me if there is change? Will I be better off or not? Are they trying to get rid of me? The fear of change is universal -- it applies to all people.

These changes will not occur without leadership, and the role of the leader also must change. Leaders at every level in the organization will need to examine their leadership styles and ask themselves some basic questions. What do I know about the work I supervise? Do I need to know more to be effective? What do I need to do to improve my skills? Do I spend most of my time directing the work, or do I spend most of my time helping people do a better job?



Navy and Marine Corps Principles of Leadership

The military has a long-standing tradition and history of teaching and instituting leadership. The Navy and Marine Corps have eleven principles of leadership that are taught to Sailors and Marines as part of their professional development. These principles have both individual and organizational application and are enhanced by the DON quality approach.

Each of the principles has a greater level of detail and elaboration associated with it. While we are not going to discuss them at length, the emphasis here is to show that they are complementary to Point 7 and represent a strong focus in the DON.

★ **Additional Information:** References such as the Marine Battle Skills Training Handbook and the Navy Leader Planning Guide are good sources of additional information.

- **Know yourself and seek self improvement**
- **Be technically and tactically proficient**
- **Know your Sailors and Marines and look out for their welfare**
- **Keep your Sailors and Marines informed**
- **Ensure the task is understood, supervised and accomplished**
- **Set the example**
- **Train your unit as a team**
- **Make sound and timely decisions**
- **Develop a sense of responsibility among your subordinates**
- **Employ your command in accordance with its capabilities**
- **Seek responsibility and take responsibility for your actions**

Leadership and Management

- Complementary systems of action
- Leadership behavior can be learned and developed
- Characteristics of a transformational leader
  - Identification as a change agent
  - Courage and outspokenness
  - Belief in people
  - Value driven
  - Lifelong learner
  - Visionary

Leadership and Management

◆ **Complementary systems of action**

Many people view leadership and management as two distinct and **complementary systems of action** , each having its own functions and characteristics. Others believe that the two are so closely linked they can't be separated. What most agree on is that both are necessary for success in an increasingly complex business and operational environment.

The traditional manager is typically thought of as a person with formal power (authority) to direct the work-related activities of at least one subordinate. The traditional job of the manager includes planning, organizing, staffing, directing, controlling, and coordinating.

★ **Additional Information:** According to Koontz and O'Donnell, **directing** is the leadership component of the management process (Koontz and O'Donnell, 1972).

In recent years, it has become more apparent that the leadership component of management involves much more than a mere "directing" function, as we shall see (Kotter, 1990).

★ **Additional Information:**

Since individuals can and should learn to develop management and leadership skills, we need a clearer picture of the activities involved in the two roles. Kotter has specified some differences between management and leadership.

Management Functions	**Leadership Functions**
Coping with complexity	Coping with change
Organizing and staffing	Aligning people
Controlling (problem solving)	Motivating and inspiring
Producing orderly results	Producing change
Planning (producing plans)	Direction setting (creating visions and strategies)

This table summarizes some differences between management and leadership. A common thread running through each of Kotter's "Management Functions" is **administration**; the common thread for his "Leadership Functions" is **change**. Today's business environment requires a greater capacity to adapt and change - today's organizations need more leadership. Kotter's statement that, "Most U.S. corporations today are over-managed and under-led," supports this idea (Kotter, 1990).

◆ **Leadership behavior can be learned and developed**

Early studies of leadership focused on identifying personal characteristics or traits that describe leaders. This work is referred to as the "great man" theory of leadership and suggests that leaders are quite different from followers -- that leadership is something one is born with that manifests itself through charismatic personalities. In contrast, Kotter writes, "Leadership isn't mystical or mysterious. It has nothing to do with having "charisma" or other exotic personality traits. It is not the province of a chosen few" (Kotter, 1990).

Experience and observation tell us that some people are better leaders than others and, some people are better managers than others. While some recent research suggests that people cannot both manage and lead, many organizations are trying to develop **"leader managers."** The challenge is to combine strong leadership and strong management and use each to balance the other.

- **Characteristics of a transformational leader**

  - **Identification as a change agent**

    The leader's goal is to make a difference and to create an organization that is adaptive and innovative;

  - **Courage and outspokenness**

    Leaders are able to take risks and stand against the status quo in an organization.

  - **Belief in people**

    Although powerful by position, leaders are sensitive to the needs of others, seeking to empower others instead of acting in a dictatorial role.

  - **Value driven**

    Leaders typically talk about a set of core values and exhibit behaviors consistent with those values.

  - **Lifelong learner**

    Leaders tend to view failures as learning experiences and possess a strong need for continual self-learning. They are capable of being self-reflective and are able to make dramatic shifts in their styles and approaches to managing when required.

  - **Visionary**

    These leaders are visionaries in the sense that they are not only capable of creating a vision for the future, but they can translate that vision so that others can share it.

In today's turbulent, highly competitive business environment, the need for managers with transformational skills is growing rapidly -- a transformation of current management practice requires transformational leadership.

Point 8

Drive out fear. Create trust.
Create a climate for innovation.

- **Fear blocks communication**
- **Fear increases costs to the organization**
- **Sources of fear**
  - **Negative consequences of risk-taking**
  - **Admitting mistakes**
  - **Losing their jobs**
  - **Asking stupid questions**
  - **Gaining new knowledge**
  - **Reporting bad news**

Point 8

Drive out fear. Create trust. Create a climate for innovation.

★ **Additional Information:**

1984 - Encourage effective, two-way communication and other means to drive out fear throughout the organization and help people work more productively.

1986 - Drive out fear, so that everyone may work effectively for the company.

In earlier modules, we talked about the need for both horizontal and vertical communication in an organization, as well as feedback between the organization and its suppliers and customers. A main force that prevents or distorts these vital ties is fear. Point 8 addresses the value of reducing fear. People can and will do a better job if fear is reduced or eliminated from the work place. Fear in the work place represents a significant barrier to total quality and it causes waste.

This point can be seen as central to all the other points. If you don't drive out fear, it will be difficult or impossible to enact the other points. On the other hand, if you act on the other points, you will help to reduce fear in the organization.

◆ **Fear blocks communication**

One way fear shows itself is in blocked communications. Good leaders solicit open communication and recommendations from all employees. Good leaders also act on those recommendations. Part of everyone's job is teaching or otherwise communicating information to each other. We must learn how to listen actively to one another.

If an organization wants to improve continually and to be effective, it needs continuous information from its work force. Leaders must do whatever they can to create open communication that goes both up and down the chain of command in the organization. If the work force is afraid, that information will not reach the leaders who can take the appropriate action.

For example, Deming cites a case in which some employees in a bank were aware of some serious problems. These problems were severe enough to jeopardize the survival of the bank. There was so much fear in the organization, however, that the employees did not tell management. The bank failed.

★ **Additional Example:** In the Red Bead Exercise, intimidation and threats did not improve productivity. Also, communication was blocked. This conveyed the message that the workers didn't have any good ideas. Fear must be replaced by an assurance that if you voice suggestions for improvement, it will contribute to your job security and to the quality of work life.

◆ **Fear increases costs to the organization**

Fear is expensive. It increases costs. We have already noted some examples (withholding ideas, slowing the pace of work). We don't really know what the total cost of fear is. It is another example of an **"unknown and unknowable"** cost. For example, bad word-of-mouth is an unknown cost.

Why does fear increase costs? Every member of an organization has information that leaders could use to improve the organization. These lost opportunities for improvement mean the organization continues its faulty practices, which are often costly.

For example, the managers in the bank that failed (referred to earlier) might have been able to prevent the failure if they had known what was going on. The employees knew what was going on. Unfortunately, the managers had created such an atmosphere of fear and mistrust that the employees were afraid to mention the problems.

★ **Additional Examples:** Other examples include:

- Withholding valuable suggestions because they might be perceived as challenging a superior's sense of competence
- Failing to improve or innovate because the leader doesn't tolerate much risk taking
- Failing to serve the best long-term interests of the company for fear of not meeting short-term goals

Fear also increases costs because people spend time (wasted labor hours) engaged in activities that are not in the best interest of the organization. Such activities include:

- Talking to one another trying to figure out what is going on
- Trying to support one another when leaders "punish" them for events they could not control
- Discussing their chances of having a job in the next six months, and so on.

You cannot put in your best performance unless you feel secure in your job. You need to be aware of fear in the work place and attempt to create an organizational climate that reduces it.

People need to feel their leaders want worker suggestions and will use those suggestions to improve the organization and its processes, products, and so on. If any suggestion is NOT implemented, it is important to explain WHY it was not implemented. It is also important to tell the worker that the suggestion and future suggestions are appreciated.

Another way to reduce fear and encourage employee input is for leaders to include employees in brainstorming sessions where everyone provides input.

★ **Additional Example:** If organizations want employees to make suggestions for improvement, they not only must eliminate fear, they must **act on** those suggestions. In 1982, Toyota received about 33 suggestions per worker and implemented 95 percent of those suggestions (Peters, 1987, p. 88).

◆ Sources of Fear

People are afraid to say or do anything that might have consequences such as censure, humiliation, punishment, or loss of job. A person doesn't have to be directly affected or even witness negative consequences. Bad news travels faster than good news, and bad news affects behavior more. The following are reasons why many people are fearful.

☞ **Instructor Direction:** You might want to lead a discussion to elicit ideas about the causes of fear in an organization; record the responses on the chartpack. The next few pages contain some answers you can expect or can suggest if the students do not.

● Negative consequences for taking risks

When we try something new, it is sometimes risky and can fail. People are afraid of the consequences of failure.

How can we help avoid or overcome this fear? We can assure people that "mistakes are seldom fatal" in the work place. Don't overreact when other people make a mistake or fail, especially when they are trying something new. People also can learn quite a bit from their errors, if seen in an accepting way.

Most improvements and innovations involve varying degrees of risk. Sometimes trying something new will succeed, and sometimes it will fail. Our **response** to success or failure in both improvement and innovative efforts is critical. It establishes an organizational climate that either supports or inhibits such behavior. Part of everyone's new job is to create a climate in which individuals are encouraged to improve and innovate.

● Admitting mistakes

Closely related to reporting bad news and fear of failure is admitting errors. If a mistake can make someone look bad, it probably will never surface (for example, reports will be padded). This situation increases costs because leaders will have no chance to learn from the mistake or to improve the process that produced the mistake in the first place.

- **Losing their jobs**

People are afraid of losing their jobs due to base closures, changing technology, reorganization, and even increased productivity (such as working one's self out of a job).

How can we help prevent or overcome this fear? People need to feel confident that the organization is working to stay in business, as we discussed in Point 1. People must be assured that if they improve their work, they won't work themselves out of a job.

Increased productivity sometimes means loss of jobs. If people increase their productivity and workload remains the same, people will be afraid the organization will run out of work. This may result in reassignments to other parts of the organization or losing one's job. Many people don't like being moved around, or moved away from their friends and co-workers, and they definitely do not like losing their jobs.

The fear of job loss can have a powerful, negative effect on performance. It can create many unproductive behaviors (such as working slower and encouraging others to work slower, intentionally making defects, or hoarding work).

- **Asking "stupid" questions**

People are afraid to ask questions because they don't want to look stupid. People often believe their supervisors think they should already know the answers to questions they would like to ask. This situation can be costly if an answer is related to effective job performance.

Some examples of ways to help avoid or overcome this fear:

- Never discourage people from asking questions
- Respond patiently to all questions, even simple ones or ones you thought were covered already
- Tell people their questions were good ones or that you are glad they asked

- **Gaining new knowledge**

Some people are afraid to learn new methods or technologies or approaches to their work.

How can we help avoid or overcome the fear of gaining new knowledge?

- Provide support for new learning
- Provide on-the-job training
- Give people adequate time and repeated opportunities to learn
- Encourage all employees to learn. Train for skills (Point 6) and educate for self-improvement (Point 13)
- Provide public acknowledgment of new skills

- **Reporting bad news**

We have all heard the phrase “Don’t shoot the messenger.” If leaders have made it clear they do not want to hear bad news -- they won't. But productivity or quality will suffer. Worse yet, when something goes wrong in a fearful environment, instead of reporting bad news, people will try to meet immediate needs (such as putting out fires). Such actions create higher costs in the long-term. For example, a worker might neglect machine maintenance to meet a schedule, or a leader might decide to cut the training budget to reduce costs.

Workers should not be punished for reporting broken equipment, for asking for instructions, or for calling attention to conditions that interfere with quality. Also, when workers report these things, leaders should take action to fix the equipment or to provide the help. This will encourage further worker reports in the future and will improve communication.

☺ **Discussion Questions:**

1. **Can you think of examples where fear inside an organization has hurt the organization?**

2. **What are some ways to reduce fear in an organization?**
   - *Encourage open communication and recommendations from everyone*
   - *Act on those recommendations*
   - *Abolish negative consequences for people trying to do their jobs, which means no censure, humiliation, punishment, or loss of jobs*

Point 9

Optimize toward the aims and purposes of the company, the efforts of teams, groups, and staff areas.

- **Departments need to work together**
- **Establish cross-functional teams**
  - **Promote vertical and horizontal communication**
  - **Encourage win-win thinking**

Point 9

Optimize toward the aims and purposes of the company the efforts of teams, groups, and staff areas.

★ **Additional Information:**

1984 - Break down barriers between departments by encouraging problem solving through teamwork, combining the efforts of people from different areas such as research, design, sales and production.

1986 - Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.

Point 9 is the **teamwork** point. Point 9 calls for leaders to break down barriers between departments and work together to solve problems as a team. Effective teamwork at all levels in the organization is a major implementing and sustaining mechanism for TQL. In Module 3-2 (Psychology), you learned that people have a need to be part of a group and to be respected by others. This point deals with these needs.

◆ **Departments need to work together**

As you have learned, everyone who works in a process is both a customer and a supplier. It is an important concept and is critical for process improvement.

Point 9 relates to the way the various departments in an organization should work together toward the aims and purposes of the organization. The emphasis here is different from the external customer-supplier relationship we talked about earlier. This point is about relationships **inside** the organization.

For example, to illustrate the importance of departments working together, Walton (1986, p. 74) relates **Deming's parable of the shoes**. The design staff of a shoe company developed a shoe they thought would be a sure-fire hit. They made eight prototypes, and, sure enough, the sales staff got thousands of orders. Sounds great! Unfortunately, only then did the design and sales staff consult with the manufacturing staff about production capability. When the sales orders started coming in, there was no way manufacturing could meet the demand.

In this version of the customer-supplier concept, the customers (sales) had not talked with their supplier (manufacturing) about the company's manufacturing ability. The result was an angry sales staff, angry retailers, and angry customers. The company also suffered because of lost business and other "unknown and unknowable" losses.

Who was at fault? The design department obviously designed an excellent pair of shoes. The sales staff also did a great job. They sold thousands of pairs. What about manufacturing? Did they drop the ball by not producing enough product? Who was at fault? Both the design and sales staff could take a little heat for not consulting with manufacturing first. Both departments were concerned with their own interests (suboptimization). They were not working as a single team for the good of the organization.

The ultimate fault belonged to top leadership. Top leaders didn't know that their job was to foster teamwork among design, sales, and manufacturing. They didn't understand the idea of internal customer-supplier relationships. It is the job of top leaders to see that staff areas work together (as teams) to avoid "parable of the shoe" type problems. It is the leader's responsibility to oversee and coordinate the work of each department for the good of the total organization.

★ **Additional Example:** Remember how the Red Bead Exercise encouraged competition among the workers? The organization itself pitted worker against worker. The organization lost any gains that might have been possible if the workers had been authorized by their managers to cooperate to improve the process.

★ **Additional Example:** Several years ago the Marine Corps reviewed its training programs. It was discovered that Marines were still training people how to repair boots although the Corps was only using disposable boots.

This example shows how people in one command (training) can be working and delivering quality services (instructing boot repairers) while another command (supply) has made that service obsolete. It shows the need for cross-functional communication.

◆ **Establish cross-functional teams**

In the past, functional organizations were designed on the premise that one person cannot know everything or do everything needed to run a business. Separate departments specialized in a particular task or function such as sales, manufacturing, or design.

A functional organization **can** operate effectively **if** departments talk with each other and try to help each other regularly, but that seldom happens. Instead, departments become mini-organizations, protecting and filling their own "rice bowls," pursuing their own aims instead of those of the organization.

This fosters a climate of competition, finger pointing, politics, power plays, mistrust, and a lack of communication. Each department is fighting for resources and is afraid (remember Point 8) that credit will be given to another department, even if they work together.

Once you start thinking of people in other departments as part of your team -- your customers and suppliers -- it is easier to consider and set up cross-functional teams. Cross-functional teams include people from every department that has an interest or stake in problems or processes that cross departmental lines. In this way, the work of the organization is structured around processes instead of functions. The concept of cross-functional teams plays a central role for organizations pursuing total quality.

- **Promote vertical and horizontal communication**

Cross-functional teams improve **horizontal** communication. When a team has members from different departments, more information flows between departments.

A cross-functional team also promotes **vertical** communication. Some of this vertical communication will be done by the upward and downward links in the various teams that are formed.

Information must flow from leaders to workers and from workers to leaders. The work force needs to understand the aims of top leadership. Top leadership must be aware of barriers to quality at the lower levels in the organization. When lower-level people make decisions, they must inform the upper levels, and vice versa.

Decisions can be made better and more quickly because the needed information is more readily available. There is less suboptimization because it is easier to see the potential effects of decisions on every department.

- **Encourage win-win thinking**

Teams working together promote cooperation within an organization so that **all** members can win.

Remember that when one team (or department or person) wins through competition, someone else loses. But when people cooperate, both teams can win. This is called a win-win situation. Organizations, as systems, can create a **win-win** relationship with their employees, too, so that what is good for the employee is considered good for the organization, and vice versa.

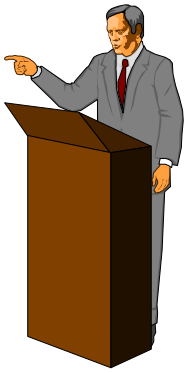
For example, win-win thinking also relates to the earlier parable of the shoes. All those departments could have "won" if only they had collaborated during all phases of the process.

This also relates to the orchestra example you heard earlier. If each orchestra member tried to be heard above the others, it would produce disharmony -- noise instead of music. This is also an example of **suboptimization** that we talked about earlier.

Point 10

Eliminate exhortations for the work force.

- **Exhortations (slogans) by themselves do not help people do the job better**
- **Slogans can be demotivating**
- **Most problems (85-94%) are due to the system itself**



Point 10

Eliminate exhortations for the work force.

★ **Additional Information:**

1984 - Eliminate use of numerical goals, posters and slogans for the work force that ask for new levels of productivity without providing methods.

1986 - Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, because most of the causes of low quality and low productivity belong to the system. They are beyond the power of the work force.

Organizations often use posters or slogans that exhort employees to some kind of improvement in behavior. Common examples are:

- Be a quality worker . . . take pride in your work!
- Increase productivity
- Think safety
- Do it right the first time!
- Zero defects!
- Do more with less
- Work smarter, not harder

Exhortations such as these should be eliminated.

- **Exhortations (slogans) by themselves do not help people do the job better**

There is nothing inherently wrong with slogans. What **is** wrong is the use of exhortations and targets when they call for increased levels of productivity **but do not provide a method** to achieve the new levels. Such slogans are examples of leaders "hoping without helping." Such targets without methods are ineffective. This assumes that all we need are targets if we want workers to make their best efforts.

For example, in the Red Bead Exercise, people were exhorted to do their best repeatedly. This did nothing to help the willing workers. What they needed was a change in the system, not exhortations.

Are slogans bad? Not if they serve to encourage behavior that is within the control of the work force. For example, at Ford, "Quality is job one" reflects a positive orientation to quality, AND it is accompanied by training and new work policies. Slogans can have value when they reflect a common attitude or value that permeates an entire organization. Sometimes slogans can be part of a vision statement or a rallying call or advertising to focus emotions on an issue or aspect of an organization.

Another example is Hewlett-Packard where the phrase, "The HP way" has a special meaning to its employees. It describes a philosophy that guides the work of its employees, from top to bottom.

- **Slogans can be demotivating**

Sometimes, people interpret slogans as management's way of saying that workers are not trying to be productive or safe or whatever. Slogans can be seen as criticisms of people who may be trying their hardest already. While the supposition that people are not "doing their best" may be true occasionally, its usually not true.

Slogans such as "Be a quality worker" or "Produce no defects" imply that there is a simple solution. They imply that people cause the work problems by being lazy and wasteful.

Pressuring people to work harder or better often backfires. Most people feel they are doing their best, but that faults in the system are frustrating their efforts to do better. When that same system implies that the workers are entirely responsible for improvements, this can be even more frustrating and demoralizing.

◆ **Most problems (85-94%) are due to the system itself**

As we have pointed out, it has been estimated that 85-94% of an organization's problems are outside the control of the workers. They are part of the system. Since 85 percent of the problems result from the system, and the leaders own the system, then slogans or other appeals to the work force can address only 15 percent of the problems.

★ **Additional Information:** This figure is attributed to Joseph Juran and is sometimes called "the 85/15 rule" (Scholtes, 1988, p. 2-8).

People are already trying to do their best but can't when they are constrained by the **system** in which they work. If you tell people they must do something they are powerless to do because of existing systems, it will only lead to frustration, resentment, and increased mistrust of leaders. This reinforces adversarial relationships between leaders and the work force. An environment created by this kind of relationship will not allow or sustain a total quality effort.

For example, safety cannot be improved in an unsafe work place. Quality products are unlikely when workers start out with bad material or information. These situations will only change by changing the system, and only the leaders and managers can change the system.

Mary Walton (1986, p. 76) notes that workers are, "Forced to work with improper or malfunctioning equipment, poor lighting or ventilation, in awkward work spaces under incompetent supervision." Also, they see "slogans and exhortations as signals" that leaders do not understand their problems, and that the leaders also don't care enough to find out.

It would be more appropriate for leaders to exhort themselves to do better by setting goals for such items as quality leadership and process improvement. Posters or charts could show the leadership's progress toward improving input to the organization, providing better maintenance, improving education and training, and providing better supervision. Such posters would undoubtedly be of interest and might motivate the work force. Such regularly-posted information would show that the leaders are committed to quality. The result would be less frustration and resentment by the work force. This could be one way to build the trust and commitment needed by all members of the organization to improve quality.

☺ **Discussion Questions:**

1. What is the danger in using slogans?

- *Slogans, by themselves, do not help people do the job better*
- *Most problems are due to the system itself*
- *Slogans can be demotivating; they sometimes imply that people are lazy or incompetent without being exhorted*
- *Slogans imply that there is a simple solution to what is sometimes a complex problem*

2. What is good about slogans?

They might encourage behavior that is within the control of the work force. They might reflect a common attitude or value of an organization. They might be accompanied by education and training and new work policies. They might serve to foster a sense of team identity.

3. What is the difference between adopting a slogan of, "Be a productive worker" and setting a goal to improve productivity by taking particular actions?

Point 11

(a) Eliminate numerical quotas for production. Instead, learn and institute methods for improvement.
(b) Eliminated M.B.O. (management by objective) Instead, learn the capabilities of processes, and how to improve them.

- **Without methods, numerical goals are crutches of poor leadership**
- **M.B.O. is often inconsistent with process improvement**
- **Standards and goals are often set without knowledge of process capability**

Point 11

(a) Eliminate numerical quotas for production. Instead, learn and institute methods for improvement.

(b) Eliminate M.B.O. (management by objective). Instead, learn the capabilities of processes, and how to improve them.

★ **Additional Information:**

1984 - Use statistical methods for continuing improvement of quality and productivity, and eliminate work standards that prescribe numerical quotas.

1986 - (a) Eliminate work standards (quotas) on the factory floor. Substitute leadership. (b) Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.

Earlier, you learned that decisions about how to improve processes must be based on data. You also saw that data are gathered by measurement and analysis in the PDCA cycle. If leaders make changes that are not based on data (such as those gathered for a control chart), they are tampering and are likely to be increasing variation instead of decreasing it.

Point 11(a) calls for the elimination of numerical quotas for production. A numerical quota is a count of the number of items produced or actions taken, usually by an individual worker, for a particular job.

For example, a quota could apply to the number of pumps overhauled in the pump shop of a shipyard, or the number of travel claims processed per hour by a travel clerk.

★ **Additional Example:** Sometimes goals or quotas are set which are inflexible even when there are unexpected changes such as schedule or lack of supplies, etc.

Point 11(b) calls for the elimination of M.B.O. (management by objective) for assessing managerial performance. Typically, leaders meet with their managers once or twice a year and set various objectives using numerical goals, such as:

- Decrease the hours required to overhaul an F-14 by 5 percent
- Reduce the number of EEO complaints by 10 percent
- Improve productivity by 15 percent

We need to change the emphasis from **quantity** to **quality** through continual process improvement efforts. A proper work standard emphasizes what is and what is not acceptable in terms of quality, not quantity.

★ **Additional Information:** The problem with management by objective (M.B.O.) is seldom implemented the way it was designed to be used. It is supposed to be a top-down system, and it is difficult to implement. Sometimes people take short cuts and pass the responsibility down to lower levels. Often, they set unrealistic goals without considering the capability of the system. You can find more information about M.B.O. in a 1954 book by Peter Drucker, who is generally considered the originator of the concept (Drucker, 1954).

- **Without methods, numerical goals are crutches of poor leadership**

Many supervisors do not know how to **do** the jobs they supervise. Instead, they manage "by the numbers." Whether they know the job or not, supervisors can **count**. They can count things such as defective parts, travel claims processed per hour, or percentage of goals met. So, they create numerical goals as a substitute for leadership.

Then supervisors can compare counts completed against counts established (standards and objectives) and evaluate people on the differences between the two -- **this is managing by the numbers.** These leaders substitute quotas for leadership.

- **M.B.O. is often inconsistent with process improvement**

Point 11(b) is about the leader's role in process improvement. After special cause variation has been removed from a process, the leaders are responsible for improving the process itself - by removing common cause variation. Leaders working under an M.B.O. system pay most of their attention to meeting the objectives instead of improving processes. They do this because they will be rewarded for meeting or surpassing short-term goals, not for improving processes.

- **Standards and goals are often set without knowledge of process capability**

Current practice in American industry is to establish work standards for products and services without determining whether the processes that make such products and services are **stable** (in statistical control). Few organizations have even heard of process stability. We learned earlier that if a process is not stable, there is no way to determine the **process capability** . There is no way to predict if the process **can** produce products or services that will meet customer needs, or even what the process will produce from one moment to the next. Without knowing if a process is stable and capable, goals have little value.

In 1987, it was said that Ford got more **usable** engines when they made 200 engines an hour than when they were trying to push through 300 an hour. To do this, they had to establish capable processes and drop their earlier uninformed numerical goals for production. The only way goals make sense is if leaders understand stability and capability.

Standards and goals can be valuable if used properly. They can help supervisors plan work assignments, help buyers prepare requests for proposals, and help comptrollers estimate and manage costs. But they should not be used as measures to manage performance as stated in Point 11(a), "Eliminate numerical quotas for production."

★ **Additional Example:** Quotas or other work standards impede quality more than any other single working condition. They also can impede pride in work. Remember the quotas that were used in the Red Bead Exercise? Those quotas could not be met because of the system. If subjected to quotas, workers will focus on achieving those goals, even if it means fudging numbers or cutting corners -- usually at the expense of quality.

☺ **Discussion Questions:**

1. **What should leaders consider when establishing work objectives?**

   Leaders must establish work objectives based on the capability of the processes in an organization, instead of setting objectives based on some arbitrary numerical goal. Only when an organization makes its processes stable and capable is it reasonable to set goals. These goals should be directed at improving the process, not just altering the output.

2. **Are all numerical goals wrong? Can you describe a situation in which a numerical goal might have a positive effect?**

   A numerical goal could have a positive effect if the processes of an organization are both stable and capable, if leaders are focused on improving the processes, and if leaders provide the needed resources (such as training, time, and money to make improvements) to achieve the goal.

Point 12

Remove barriers that rob people of pride of workmanship.

- **The right to pride of workmanship**
- **Imprecise and inadequate performance measures**
  - **Appraisals cannot substitute for leadership**
  - **Appraisals are a barrier to teamwork**

Point 12

Remove barriers that rob people of pride of workmanship.

★ **Additional Information:**

1984 - Remove all barriers that inhibit the worker's right to pride of workmanship.

1986 - (a) Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibilities of supervisors must be changed from sheer numbers to quality.

(b) Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means abolishment of the annual or merit rating and of management by objective.

◆ **The right to pride of workmanship**

Everyone, the leader and worker alike, has " . . . the right to be proud of his work, the right to do a good job" (Deming, 1986, p. 77). Anything that stands in the way of this is a **barrier** to pride of workmanship.

How do you find out about the barriers? One way is to meet with the people doing the work, such as the sailors and marines performing their routine duties.

We have talked about many of the following examples of barriers in earlier lessons. Many of them arise because leaders focus on the wrong things and neglect basic organizational needs such as genuine two-way communication, continual process improvement, and the need to train and retrain workers.

Some of these barriers are:

- Inadequate training for the job
- Poorly written or outdated documentation of work procedures
- Defective incoming material or information
- Delays and shortages
- Poorly maintained or defective equipment
- An inspection process that identifies defects but provides no information on how to remedy the situation
- Quotas or rush jobs that force workers to produce defective products
- Imprecise work measures

★ **Additional Information:** When Deming took on a new corporate client, he insisted on meeting with a group of workers without supervisors present. The purpose of the meeting was to identify and discuss barriers to pride of workmanship. He said, "These barriers exist in almost every plant, factory, company, department store, government office in the United States today" (Walton, 1986, p. 81).

Many complaints focus on poor leadership such as:

- Being treated as a commodity, hired when needed, fired when there is a downturn in business.
- Leaders who do not know the work they supervise, so they cannot help the employee do a better job (lack of leadership).
- Inadequate or no feedback on the quality or quantity of the product or service produced.
- Leaders who will not listen to or act on suggestions for improvement.

Pride of workmanship means being able to do quality work. The conditions mentioned above are examples of barriers that diminish the likelihood of an organization successfully pursuing total quality.

◆ **Imprecise and inadequate performance measures**

One major barrier to pride of workmanship is the annual rating of performance (variously called merit rating, annual appraisal, performance evaluation, and so on). Workers perform in a larger system. Employees are elements in a system, and their performance is often determined by that system, rarely the other way around. Remember that 85 percent of the problems in an organization are the responsibility of the leaders, not the workers in the system. It makes no sense to blame workers for problems they cannot control.

- **Appraisals cannot substitute for leadership**

  What is the purpose of the annual performance rating? The primary purpose is to manage or control performance. In this sense, the rating is a **substitute for leadership** . As part of a control system, performance measures are designed to identify individuals who are performing well and deserve some recognition (such as promotions, special assignments, or incentive awards). They are also intended to identify people who are not performing well and need special attention (such as counseling, discipline, or separation).

  A primary argument against the annual performance rating is that it robs people of their right to pride of workmanship. The annual rating may be perceived as a form of **inspection** . After each rating year, management sorts out the good from the bad.

  Because many systems use performance ratings to make promotion decisions, the frequency distribution often begins to skew toward the high end. No one is “average” anymore! What would happen to your morale if you were told you were average, or worse yet, below average? No one wants to be average or below average. Most people believe they are above average. It is the **consequences** of such ratings that rob people of their pride of workmanship. A low, or even average rating can brand individuals as failures when they are not.

  Worse, when the scale becomes so skewed that everyone has the same rating, managers resort to ranking to sort out who to reward or promote.

- **Appraisals are a barrier to teamwork**

Another serious problem with an annual rating system is that it is a **barrier to teamwork** , a critical aspect we talked about in Point 9. If I do something to help you, you might get a higher rating than I will. There is no good reason to cooperate. In fact, there are good reasons not to cooperate. Rating systems foster **suboptimization** , people working toward personal aims instead of the aims of the organization.

Even rewards can sometimes destroy teamwork. For example, a team worked hard together to make an aircraft operational. An inspection team gave the aircraft an outstanding rating for immaculate condition. The team leader received a Navy Achievement Medal for a job well done. The team got nothing. One team member commented, "Why should I help this guy anymore? He can walk on water!" (COMTRAPAC CNO TQL Team, 1992).

The annual rating of performance draws an arbitrary distinction between the "winners" and the "losers," and generally rewards the "winners" with money. An employee rating is based on many factors, including the bias of the rater, the intervals of the rating, and luck.

Performance appraisal systems have not been developed to the stage where they are reliable or valid. No matter how well it is done, an annual assessment is, at best, inherently flawed. At worst, the negative effects of performance appraisals are harmful to teamwork and self-esteem.

★ **Additional Information:** When it comes to promotions, how lucky are you? Some Navy leaders say that they were promoted because they were lucky enough to be assigned to a good ship or command, and they were also lucky to leave a good ship when their tour was completed.

There have been many attempts over the years to improve the annual rating systems. The federal government comes out with a new system every four to five years. Despite the effort, the rating systems are nearly always imprecise and inadequate -- plagued with high degrees of ambiguity and subjectivity.

Even if we could develop a rating system that **could** accurately discriminate between levels of performance, why do it? What is the purpose or intent of an evaluation system? Do we want a system that is motivational? Is the intent to evaluate individual performance or to evaluate system performance? Do we want a tool for determining promotions? If we know the purpose of a new system, it will guide how the system is structured and used.

What can we do now?

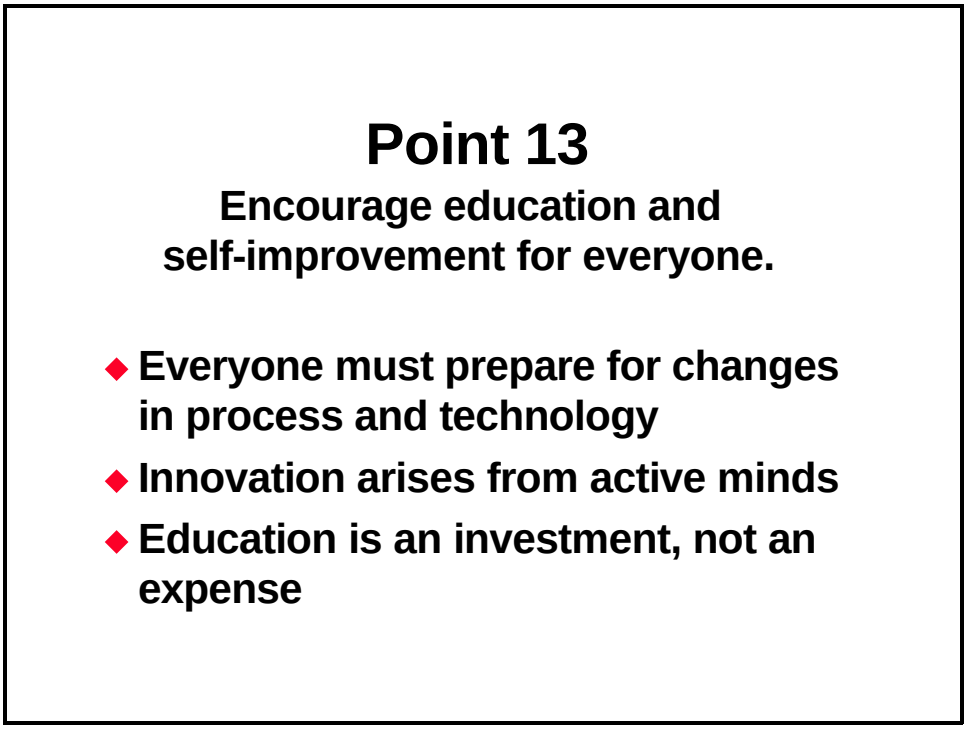
What can you do about the annual rating? For now, you cannot get rid of the annual rating. But you can develop objectives that support the Total Quality Leadership philosophy. Leaders and workers can be rated on how well they support and engage in process improvement activities, foster teamwork and a sense of cooperation, and how well they identify and try to satisfy customer needs.

Meanwhile, we **can** begin to emphasize quality of work in our performance standards -- commitment to quality, participation on teams, training on process control, and so on, as measurable items that can be used as evaluations of performance.

Here is one final thought on this point. Robert Reich, a noted Harvard economist and Secretary of Labor, said, "Your most precious possession is not your financial assets; your most precious possession is the people you have working there, and what they carry around in their heads, and their ability to work together."

★ **Additional Information:** Here are other issues on performance appraisals that you might want to discuss or be prepared to respond to questions from the students.

(a) Leaders need to know the difference between special causes and common causes when it comes to evaluations and promotions.
(b) We need to operationally define the intent or purpose of performance appraisals.
(c) Do we want team players to get promoted?
(d) If appraisals are to be motivational, they should include a way to shape people's futures. For example, when you think you are outstanding, the appraisal could show what you need to do to get there.



Point 13

Encourage education and self-improvement for everyone.

★ **Additional Information:**

1984 - Institute a vigorous program of education and re-training to keep up with changes in materials, methods, product design and machinery.

1986 - Institute a vigorous program of education and self-improvement.

Real estate agents say that the three most important things about property are location, location, and location. For total quality, the three most important things are education, education, and education.

There is something inherently good about education. Education, for its own sake, is good for people and will eventually add something positive to an organization and society. "What an organization needs is not just good people; it needs people that are improving with education" (Deming, 1986, p. 86).

"Quality control begins with education and ends with education" (Ishikawa, 1985, p. 37).

- **Everyone must prepare for changes in process and technology**

Everyone in an organization needs to be encouraged to pursue knowledge. People need to be encouraged to keep abreast of the latest developments in their fields of interest or expertise. They need to think of ways to apply new knowledge to their work. Continual improvement (Point 5) applies to **people** as well as processes.

The organization needs to consider ways to encourage continual education and provide the needed resources. Education can be through area schools or can be brought to the organization through on-site programs and guest lecture series.

Education does not necessarily have to be job related. This point refers to education above and beyond skills training. While regulations in the Navy and Marine Corps might limit the support of non-job related education, we do not know what knowledge or skills are going to be applicable in the future. The future will bring new, unknown jobs. We will see new technologies, new products and services, new processes, and new uses for knowledge currently thought impractical. We don't know what knowledge learned today will be used or needed tomorrow.

- **Innovation arises from active minds**

When we actively learn about any topic, it stimulates our thinking. Learning helps us make new connections between even ideas. It prepares us for change and for the future. This sort of stimulation can produce creative ideas about products, about processes, and about services, all of which can benefit our organizations.

America has long been a leader in **innovation**. Elements of the current Japanese style of management (strategic planning, statistical process control, suggestion systems) were originally developed in America. Many products in markets that the Japanese now dominate (VCRs, television), were developed in America. Americans excel at innovation.

Innovation is important to our future, long-term success. It is difficult to predict our future needs. But if the people in an organization continue to educate themselves in a variety of fields, they will be ready to thrive in an innovative work environment.

Innovation depends on knowledge and an organizational climate that supports gaining knowledge. Organizations must institute ways to encourage and reward experimentation and innovation. The Western world must invest more in education, research, and development to maintain the edge in innovation.

★ **Additional Information:** Learning is no longer only for the young. It must become a lifelong activity for all of us. It is **not** true that, "Old dogs can't learn new tricks." However, the way we learn as adults is different from the way we learned as children. It is often called "adult learning." For example, adult learning recognizes that learners already possess a fund of knowledge and skills before the new learning events begin. Adults must integrate any new learning with a large amount of previous knowledge.

◆ **Education is an investment, not an expense**

Many companies say their people are their greatest asset. But their actions tell a different story. These companies invest huge sums on equipment and new technology, plus the resources needed to maintain these investments. On the other hand, employees, and their education and training, are often considered as **expenses** instead of as **investments**. If this "expense" orientation to people persists, America will continue to lose pace in the world marketplace.

Two of the Fourteen Points (6 and 13) address learning. "There is an important distinction between Points 6 and 13. Point 6 refers to the foundations of training for leaders and for new employees. Point 13 refers to continual education and improvement of everyone on the job - self-improvement" (Deming, 1986, p. 54).

Point 6 refers to training, especially job training. Point 13 is about education. While there is no definite line between the words "training" and "education," the focus of Point 6 is on learning the **skills** needed to do a job. It applies to both leaders and the work force.

★ **Additional Example:** There is the story of the specialist brought in to fix a computer. He came in and listened to a description of what happened before the computer broke down. Then he glanced at the equipment and changed a switch setting. This fixed the computer. When the client complained at the size of the specialist's bill, he said, "What you are paying for is my expertise. I knew exactly which button to push and why." Then he explained that it would have taken anyone else a long time to figure out what to do, and he or she might have broken the equipment further. He said that if they want the expertise in-house, they should send some people to school to learn the special skills needed.

Point 14

Take action to accomplish the transformation.

- **Leaders must develop and implement a plan for quality improvement**
- **Top leaders cannot do it alone**
- **Establish a critical mass**
- **We are all in it together!**

Point 14

Take action to accomplish the transformation.

★ **Additional Information:**

1984 - Clearly define top management's permanent commitment to quality and productivity and its obligation to implement all of these principles.

1986 - Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

Point 14 means taking action on the other points. Total quality is a difficult undertaking that will not happen by issuing orders. It requires study, discussion, patience, perseverance and constant work by everyone in the organization.

A paradigm shift from current practices to total quality truly requires a **transformation** . Many people claim there is nothing new about TQL. Don't believe them. Statements like these show a real lack of understanding about TQL. Total quality requires a **cultural change** , a new orientation to how we work, how we make decisions, and how we interact in the workplace. More importantly, this transformation redefines the meaning of leadership -- **to help people do a better job** .

- **Leaders must develop and implement a plan for quality improvement**

"Management will have to organize itself as a team to advance the thirteen other points" (Walton, 1986, p. 86). This is an added responsibility of the organization's leaders. The plan is needed to guide the change effort.

- **Top leaders cannot do it alone**

At first, the top leader will need to choose managers who strongly favor change and want to participate in leading the change. However, this group cannot create the transformation by itself. Middle managers who also see the need for change and want to participate must be identified and organized.

Middle managers are a particularly important group to bring on board because of the responsibility they have for overseeing the operations of the organization. Middle managers are responsible for translating customer requirements into quality characteristics that must be satisfied to enable continual improvement in products and services.

- **Establish a critical mass**

One of the goals of an organization that wants to implement total quality leadership is to identify, organize, and educate a **critical mass** of individuals. Members of this critical mass have the power and knowledge and leadership to begin and sustain the transformation to quality.

The critical mass must be identified and targeted early by the top management of an organization. In this way, members of the critical mass can be adequately trained and can develop an understanding of their new responsibilities. Some of them might be volunteers, but it is essential that they be in a position to exercise the power of influence, guidance, and leadership (COMTRAPAC CNO TQL Team, 1992).

- **We are all in it together**

To achieve the full potential of TQL, **everyone** in the organization will need to participate. We must develop a sense of community so that everyone understands and believes, "We are all in it together." The transformation is everyone's job.

Open communication is an important key. Leaders provide planning, periodic updates and reaffirmations of their intentions. Managers maintain close communications with the leaders, with each other, and with the people in their teams. Workers talk openly with each other and with their supervisors.

★ **Additional Information:** Taking action to accomplish the transformation means that:

- Management . . . will struggle over every one of the points. . . . They will agree on their meaning and on the direction to take. They **will agree to carry out the new philosophy** .
- Management . . . **will take pride in their adoption of the new philosophy and in their new responsibilities** . They will have the courage to break with tradition, even to the point of exile among their peers.
- Management . . . will start as soon as possible to construct with deliberate speed an **organization to guide continual improvement of quality** .
- Management . . . **will allow everyone to take part** in the transformation and be in a team.

☺ **Discussion Questions:**

1. **What would happen if just a small group of middle managers wanted to implement TQL in an organization, but no one else supported the idea?**

   TQL is a top-down approach. Without leadership from the top, it is possible (or even likely) that leaders would reject extensive changes if they originated from below. Note that many quality circles were unsuccessful because they used a bottom-up approach. Managers disregarded their suggestions and even disbanded the groups.

   *However, middle managers in an organization can make **some** changes within their span of control, especially if they take a systems view of the organization.*

   Remember that changes which arise from below are more likely to lead to suboptimization if the middle managers do not have the full picture of the organization and its processes.

2. **Why wouldn't TQL work if the top leaders just SAID they supported TQL and then delegated the action items to their subordinates? What do you think would happen?**

   Top leaders must demonstrate their commitment to TQL in their daily behaviors and in their provision of resources (such as time and money) to make TQL a reality. If they do NOT demonstrate this commitment, their subordinates will probably think that TQL is just another passing program that the top leaders expect to disappear.

Seven Deadly Diseases

- Lack of constancy of purpose
- Emphasis on short-term profits
- Evaluation by performance, merit rating, or annual review
- Mobility of management
- Management by use of visible figures alone
- Excessive medical costs
- Excessive costs of warranty

Seven Deadly Diseases

Implementing the Fourteen Points will not be easy; some deadly diseases stand in the way. These diseases afflict most organizations and must be eradicated to accomplished the transformation.

- **Lack of constancy of purpose**

The top leader whose vision of the organization's future does not extend past their projected rotation date has dealt a crippling blow to that organization. Without a vision that extends 5-10 years in the future, there is no motivation to pursue the incremental, continuous improvements required to achieve customer satisfaction.

- **Emphasis on short-term profits**

Looking for short-term returns is the antithesis of constancy of purpose. Emphasizing short-term returns results in a "fix the problem" mentality; one never gets to the root cause.

- **Evaluation by performance, merit rating, or annual review**

Performance evaluations or annual reviews spawn short-term thinking and short-term performance. All too often, people are evaluated based upon their individual output or the output of their work group. As a result, there is little motivation to learn how to make the output better, only to learn how to increase it.

- **Mobility of top management**

While a serious problem for private enterprise, mobility of top management presents less serious problem for the DON. Leaders transfer all the time; however, they remain within the boundaries of the organization and their expertise is not lost. Mobility of personnel has a detrimental effect on team dynamics as the addition of a new member or members can cause teams to revert back to less productive levels of team development. Additionally, frequent transfers can promote short-term mentality which focuses on the problems of today with no real commitment to the long-term initiatives of the organization.

- **Management by use of visible figures alone**

Management often uses only visible figures with little or no consideration of figures that are unknown or unknowable. Information on unknown and unknowable costs associated with business organizations should be considered. Senior leaders should become aware of the unknowable costs associated with the premature loss of highly qualified personnel due to “burnout” or the costs associated with drug and alcohol abuse.

- **Excessive medical costs**

Unsafe practices, improperly maintained equipment, insufficient training in the use of equipment, excessive workloads, unrealistic schedules or deadlines, and pressure to produce without the means to do so may result in accidents, job stress, or burnout. All of these result in increased medical costs.

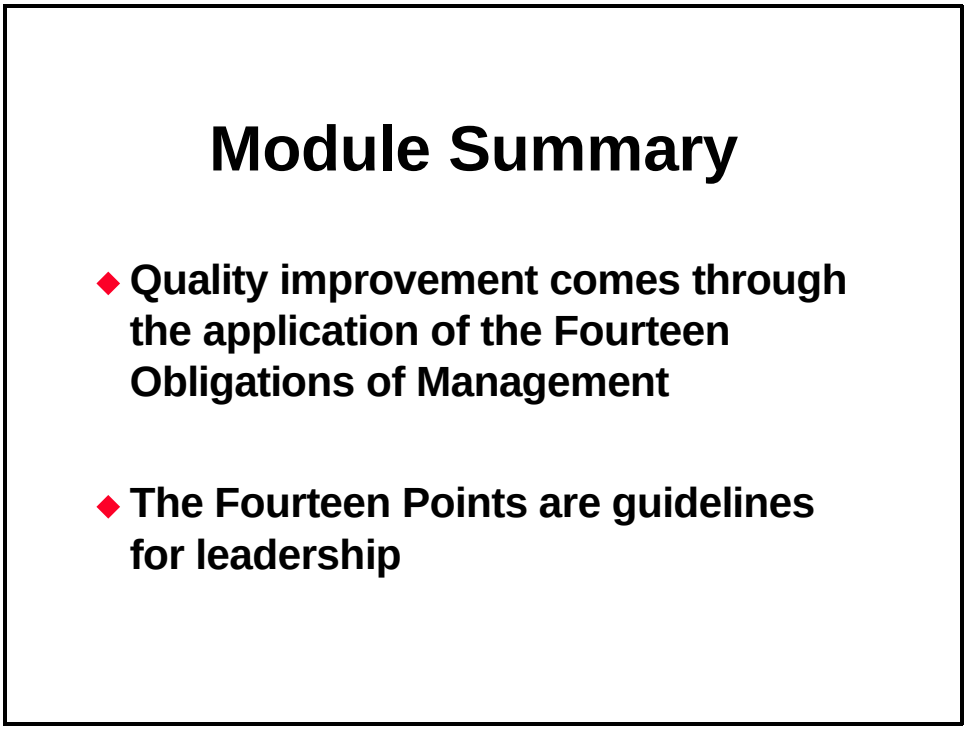
- **Excessive costs of warranty**

While this particular deadly disease does not have widespread application within the DON, other types of litigation between personnel and management does occur. Increased communication, and the removal of a “we-they” attitude can do much to mitigate this deadly disease.

☺ **Discussion Questions:**

1. **In response to hard times, a naval organization initiated several major changes. Its leader announced that productivity had to improve. So he told divisions to produce five percent more output in the next quarter than they had produced in the previous quarter. To help in this effort, the leaders put up posters around the command that said, "Do it now." They also hired more inspectors to make sure that the higher production rates did not result in lower quality output. Which of the Fourteen Points is the command violating?**
   - *Setting an objective for a five percent increase in output without knowing the capabilities of the system violates Point 11 (eliminate quotas and M.B.O.). This could encourage divisions to suboptimize the system to reach what might be impossible goals.*
   - *The posters were exhortations to the workers, and might also have encouraged people to take action without gathering and studying data.*
   - *Adding more inspectors and relying on inspection alone to create quality output goes against Point 3 (inspection).*

2. **The leaders at another naval organization responded to hard times by publishing its long-term goals, by setting up cross-functional teams to investigate and measure the organization's processes, by eliminating most employee travel and training programs, and by instituting improved two-way communication among the employees. Which of the Fourteen Points were being followed and which were being ignored?**
   - *Publishing long-term goals is one way to support Points 1 (constant commitment) and 14 (accomplish the transformation).*
   - *Setting up cross-functional teams is one way to implement Point 9 (teams) .*
   - *Having those teams investigate and measure processes is a first step toward accomplishing Point 5 (continual improvement).*
   - *Eliminating employee training programs violates Points 6 (training for skills) and 13 (education for self-improvement).*



Module Summary

- **Quality improvement comes through the application of the Fourteen Obligations of Management**

Each point sounds simple, but the changes they require are major ones. Quality is the ultimate aim. Practicing the Fourteen Points helps an organization achieve better quality, better products and services, better skills, increased productivity, and lower costs.

Remember, you do not have to accomplish the Fourteen Points in order or all at once. You must work on them all eventually, but you can start by concentrating on one or more. Because they are interrelated, progress on one point will often trigger action on another.

Our task, and the task for our leaders, is to study these points and determine how to apply them in each command. The Fourteen Points will work, but only if top leaders work at them.

- **The Fourteen Points are guidelines for leadership**

The Fourteen Points are not aimed at workers -- they clearly provide guidance on issues that only leaders and managers can affect.

The Fourteen Points provide us with new "rules of the road." They are guideposts as we make the many changes needed in our organizations. Leaders who are new to TQL often say, “TQL sounds good in theory, but how do I ‘do it’?” The answer can be as simple as applying the Fourteen Points.